indole and 2-methyl-N-[3- (4-piperidinyl)phenyl]propanamide: ESMS m/e: 497.0 (M + H) $^{+}$.

Example 522

N-[3-(1-{[7-(4-ACETYLPHENYL)-1H-INDOL-3-YL]METHYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE: Prepared by Procedure D and Scheme N using 1-[4-(1H-indol-7-Yl)phenyl]ethanone and 2-methyl-N-[3-(4-piperidinyl)phenyl]propanamide: ESMS m/e: 493.6 (M + H)⁺.

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N-[3-(1-{[6-(4-ETHYLPHENYL)-1H-INDOL-3-YL]METHYL}-4PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE: Prepared by
Procedure D and Scheme N using 6-(4-ethylphenyl)-1Hindole and 2-methyl-N-[3-(4-piperidinyl)phenyl]propanamide: ESMS m/e: 480.1 (M + H)⁺.

Example 524

Example 523

 $2-METHYL-N-[3-(1-{[7-(2-METHYLPHENYL)-1H-INDOL-3-$

YL]METHYL}-4-PIPERIDINYL)PHENYL]PROPANAMIDE: Prepared by Procedure D and Scheme N using 7-(2-methylphenyl)-1H-indole and 2-methyl-N-[3-(4-piperidinyl)phenyl]propanamide: ESMS m/e: 466.1 (M + H)⁺.

25 Example 525

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N-[3-(1-{[6-(2-FLUOROPHENYL)-1H-INDOL-3-YL]METHYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE: Prepared by Procedure D and Scheme N using 6-(2-fluorophenyl)-1H-indole and 2-methyl-N-[3-(4-piperidinyl)phenyl]propanamide: ESMS m/e: 470.2 (M + H)⁺.

5-(4-METHYLPHENOXY)-1H-INDOLE: Prepared by Procedure J and Scheme U using 5-bromo-1H-indole and p-cresol: ESMS m/e: 224.0 (M + H)⁺.

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N-(3-{1-[(5-BROMO-1H-INDOL-3-YL)METHYL]-4-PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by Procedure D and Scheme N using 5-bromo-1H-indole and 2methyl-N-[3-(4-piperidinyl)phenyl]propanamide: ESMS m/e: 454.0 (M + H)⁺.

1-(4-PYRIDINYL)-6-(TRIFLUOROMETHYL)-1H-INDOLE: Prepared

by Procedure C and Scheme O using 6-(trifluoromethyl)
1H-indole and 4-iodopyridine: ESMS m/e: 262.9 (M + H)⁺.

Example 527

2-METHYL-N-[3-(1-{[5-(4-METHYLPHENOXY)-1H-INDOL-3-

- 15 YL]METHYL}-4-PIPERIDINYL)PHENYL]PROPANAMIDE: Prepared by Procedure D and Scheme N using 5-(4-methylphenoxy)
 1H-indole and 2-methyl-N-/(3-(4-piperidinyl)phenyl]propanamide: ESMS m/e: 481.9 (M + H)*.
- 1-(4-METHYLPHENYL)-1H-INDOLE: Prepared by Procedure C and Scheme O using 1H-indole and 1-iodo-4-methylbenzene: ESMS m/e: 208.0 (M + H)⁺.
- 1-(3-METHYLPHENYL)-1H-INDOLE: Prepared by Procedure C and Scheme O using 1H-indole and 1-iodo-3-methylbenzene: ESMS m/e: 208.0 (M + H) $^{+}$.
- 1-[3-(TRIFLUOROMETHYL) PHENYL] 1H-INDOLE: Prepared by
 Procedure C and Scheme O using 1H-indole and 1-iodo-3(trifluoromethyl) benzene: ESMS m/e: 262.0 (M + H)⁺.

- 1-(4-METHOXYPHENYL)-1H- INDOLE: Prepared by Procedure C and Scheme O using 1H-indole and 1-iodo-4-methoxybenzene: ESMS m/e: 224.0 (M + H) $^+$.
- 5 1-(2-METHOXYPHENYL)-1H-INDOLE: Prepared by Procedure C and Scheme O using 1H-indole and 1-iodo-2-methoxybenzene: ESMS m/e: 224.0 (M + H)⁺.
- 1-(3-METHOXYPHENYL)-1H-INDOLE: Prepared by Procedure C and Scheme O using 1H-indole and 1-iodo-3methoxybenzene: ESMS m/e: 224.0 (M + H)⁺.
- 1-(2-METHYLPHENYL)-1H-INDOLE: Prepared by Procedure C and Scheme O using 1H-indole and 1-iodo-2-methylbenzene:

 ESMS m/e: 208.0 (M + H)⁺.
 - **6-FLUORO-1-PHENYL-1H-INDOLE:** Prepared by Procedure C and Scheme O using 6-fluoro-1H-indole and iodobenzene: ESMS m/e: 212.0 (M + H) $^+$.
- **6-CHLORO-1-PHENYL-1H-INDOLE:** Prepared by Procedure C and Scheme O using 6-chloro-1H-indole and iodobenzene: ESMS m/e: 228.0 (M + H) $^{+}$.

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- 7-CHLORO-1-PHENYL-1H-INDOLE: Prepared by Procedure C and Scheme O using 7-chloro-1H-indole and iodobenzene: ESMS m/e: 228.0 (M + H)⁺...
- 6-(2-FLUOROPHENYL)-1H-INDOLE: Prepared by Procedure I

 30 and Scheme T using 6-bromo-1H-indole and 2fluorophenylboronic acid: ESMS m/e: 211.9 (M + H)⁺.

2-METHYL-N-{3-[1-(7-OXO-7-PHENYLHEPTYL)-4-PIPERIDINYL]PHENYL}PROPANAMIDE: Prepared by Procedure K and Scheme B1 using 7-chloro-1-phenyl-1-heptanone and 2-methyl-N-[3-(4-piperidinyl)phenyl]propanamide: ESMS m/e: 435.1 (M + H)*.

Example 529

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2-METHYL-N-{3-[1-(6-OXO-6-PHENYLHEXYL)-4-

PIPERIDINYL] PHENYL PROPANAMIDE: Prepared by Procedure K and Scheme B1 using 6-chloro-1-phenyl-1-hexanone and 2-methyl-N-[3-(4-piperidinyl) phenyl] propanamide: Anal. Calcd for C27H36N2O2+0.1CHCl₃: C, 75.3; H, 8.39; N, 6.46. Found: C, 75.4; H, 7.89; N, 6.18; ESMS m/e: 421.1 (M + H)⁺.

Example 530

2-METHYL-N-{3-[1-(5-OXO-5-PHENYLPENTYL)-4-PIPERIDINYL]PHENYL}PROPANAMIDE: Prepared by Procedure K and Scheme B1 using 5-chloro-1-phenyl-1-pentanone and 2-methyl-N-[3-(4-piperidinyl)phenyl]propanamide: ESMS m/e: 407.1 (M + H)⁺.

Example 531

N-(3-{1-[4-(4-METHOXYPHENYL)-4-OXOBUTYL]-4PIPERIDINYL}PHENYL)PROPANAMIDE: Prepared by Procedure K
and Scheme B1 using 4-chloro-1-(4-methoxyphenyl)-1butanone and N-[3-(4-piperidinyl)phenyl]propanamide:
ESMS m/e: 409.2 (M + H)*.

Example 532

N-(3-{1-[4-(4-CHLOROPHENYL)-4-OXOBUTYL]-4PIPERIDINYL}PHENYL) PROPANAMIDE: Prepared by Procedure K
and Scheme B1 using 4-chloro-1-(4-chlorophenyl)-1-

butanone and N-[3-(4-piperidinyl)] propanamide: ESMS m/e: 413.1 (M + H)⁺.

Example 533

N-(3-{1-[4-(4-BROMOPHENYL)-4-OXOBUTYL]-4PIPERIDINYL}PHENYL)PROPANAMIDE: Prepared by Procedure K
and Scheme B1 using 1-(4-bromophenyl)-4-chloro-1butanone and N-[3-(4-piperidinyl)phenyl]propanamide:
ESMS m/e: 457.1 (M + H)⁺.

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Example 534

 $N-(3-\{1-[4-(4-TERT-BUTYLPHENYL)-4-OXOBUTYL\}-4-PIPERIDINYL\}$ PHENYL) PROPANAMIDE: Prepared by Procedure K and Scheme B1 using 1-(4-tert-butylphenyl)-4-chloro-1-butanone and <math>N-[3-(4-piperidinyl)] phenyl] propanamide: ESMS m/e: 435.2 (M + H)⁺.

Example 535

N-(3-{1-[4-(4-FLUOROPHENYL)-4-OXOBUTYL]-4
PIPERIDINYL}PHENYL)PROPANAMIDE: Prepared by Procedure K

and Scheme B1 using 4-chloro-1-(4-fluorophenyl)-1
butanone and N-[3-(4-piperidinyl)phenyl]propanamide:

ESMS m/e: 397.2 (M + H)⁺.

25 Example 536

N-(3-{1-[4-OXO-4-(4-PHENOXYPHENYL)BUTYL]-4PIPERIDINYL}PHENYL)PROPANAMIDE: Prepared by Procedure K
and Scheme B1 using 4-chloro-1-(4-phenoxyphenyl)-1butanone and N-[3-(4-piperidinyl)phenyl]propanamide:
ESMS m/e: 471.2 (M + H)⁺.

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 $N-(3-\{1-[4-(4-ISOPROPYLPHENYL)-4-OXOBUTYL]-4-$ PIPERIDINYL PHENYL) CYCLOPROPANECARBOXAMIDE: Prepared by 4-chloro-1-(4-B1 using K and Scheme Procedure isopropylphenyl)-1-butanone and N-[3-(4piperidinyl)phenyl]cyclopropanecarboxamide: m/e: ESMS $433.2 (M + H)^{+}$.

Example 538

 $N-(3-\{1-[4-(4-METHOXYPHENYL)-4-OXOBUTYL]-4-$ 10 PIPERIDINYL PHENYL) CYCLOPROPANECARBOXAMIDE: Prepared by 4-chloro-1-(4-B1 using Procedure . K and Scheme N - [3 - (4 and methoxyphenyl)-1-butanone piperidinyl)phenyl]cyclopropanecarboxamide: **ESMS** m/e: $421.2 (M + H)^{+}$ 15

Example 539

 $N-(3-\{1-[4-OXO-4-(4-PHENOXYPHENYL)BUTYL]-4-$ Prepared by PIPERIDINYL } PHENYL) CYCLOPROPANECARBOXAMIDE: 4-chloro-1-(4and Scheme B1 using Procedure K 20 N-[3-(4and phenoxyphenyl) -1-butanone piperidinyl)phenyl]cyclopropanecarboxamide: ESMS m/e: $483.2 (M + H)^{+}$.

25 Example 540

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 $N-(3-\{1-[4-(4-ISOPROPYLPHENYL)-4-OXOBUTYL]-4-PIPERIDINYL\}$ PHENYL) PROPANAMIDE: Prepared by Procedure K and Scheme B1 using 4-chloro-1-(4-isopropylphenyl)-1-butanone and N-[3-(4-piperidinyl)] propanamide: ESMS m/e: 421.3 (M + H)⁺.

N-(3-{1-[4-(4-TERT-BUTYLPHENYL)-4-OXOBUTYL]-4PIPERIDINYL}PHENYL) CYCLOPROPANECARBOXAMIDE: Prepared by
Procedure K and Scheme Bl using 1-(4-tert-butylphenyl)4-chloro-1-butanone and N-[3-(4piperidinyl)phenyl]cyclopropanecarboxamide: ESMS m/e:
447.2 (M + H)⁺.

Example 542

N-(3-{1-[4-(4-METHYLPHENYL)-4-OXOBUTYL]-4PIPERIDINYL}PHENYL) PROPANAMIDE: Prepared by Procedure K
and Scheme B1 using 4-chloro-1-(4-methylphenyl)-1butanone and N-[3-(4-piperidinyl)phenyl] propanamide:
ESMS m/e: 393.2 (M + H)⁺.

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Example 543

 $N-(3-\{1-[4-(3,4-DIMETHYLPHENYL)-4-OXOBUTYL]-4-$ PIPERIDINYL}PHENYL) PROPANAMIDE: Prepared by Procedure K and Scheme B1 using 4-chloro-1-(3,4-dimethylphenyl)-1-butanone and N-[3-(4-piperidinyl)phenyl] propanamide: ESMS m/e: 407.2 (M + H) $^+$.

Example 544

N-(3-{1-[4-(4-BROMOPHENYL)-4-OXOBUTYL]-4
PIPERIDINYL}PHENYL) CYCLOPROPANECARBOXAMIDE: Prepared by Procedure K and Scheme B1 using 1-(4-bromophenyl)-4-chloro-1-butanone and N-[3-(4-piperidinyl)phenyl] cyclopropanecarboxamide: ESMS m/e: 469.1 (M + H)⁺.

Example 545

N-(3-{1-[5-(4-FLUOROPHENYL)-5-OXOPENTYL]-4PIPERIDINYL}PHENYL)PROPANAMIDE: Prepared by Procedure K
and Scheme B1 using 5-chloro-1-(4-fluorophenyl)-1-

pentanone and N-[3-(4-piperidinyl)] propanamide: ESMS m/e: 411.2 (M + H).

Example 546

 $N-(3-\{1-[4-(3,4-DIMETHYLPHENYL)-4-OXOBUTYL]-4-$ 5 PIPERIDINYL PHENYL) CYCLOPROPANECARBOXAMIDE: Prepared by 4-chloro-1-(3,4using Scheme Bl Procedure K and N - [3 - (4 and dimethylphenyl)-1-butanone piperidinyl)phenyl]cyclopropanecarboxamide: ESMS m/e: $419.2 (M + H)^{+}$. 10

Example 547

 $N-(3-\{1-[4-(4-METHYLPHENYL)-4-OXOBUTYL]-4-$ PIPERIDINYL } PHENYL) CYCLOPROPANECARBOXAMIDE: Prepared by B1 using 4-chloro-1-(4-Procedure K and Scheme N - [3 - (4 methylphenyl)-1-butanone and piperidinyl)phenyl]cyclopropanecarboxamide: ESMS : m/e: $405.2 (M + H)^{+}$.

Example 548

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 $N-(3-\{1-[4-(4-FLUOROPHENYL)-4-OXOBUTYL]-4-$ PIPERIDINYL PHENYL) CYCLOPROPANECARBOXAMIDE: Prepared by 4-chloro-1-(4using K and Scheme B1 Procedure N-[3-(4fluorophenyl) -1-butanone and piperidinyl)phenyl]cyclopropanecarboxamide: ESMS m/e: 25 $409.2 (M + H)^{+}$.

Example 549

N-(3-{1-[5-(3-FLUOROPHENYL)-5-OXOPENTYL]-4
PIPERIDINYL}PHENYL)CYCLOPROPANECARBOXAMIDE: Prepared by
Procedure K and Scheme B1 using 5-chloro-1-(3-fluorophenyl)-1-pentanone and N-[3-(4-

piperidinyl)phenyl]cyclopropanecarboxamide: ESMS m/e: 423.2 (M + H) $^{+}$.

Example 550

N-[3-(1-{5-OXO-5-[4-(TRIFLUOROMETHYL)PHENYL]PENTYL}-4
PIPERIDINYL)PHENYL]PROPANAMIDE: Prepared by Procedure K

and Scheme B1 using 5-chloro-1-[4
(trifluoromethyl)phenyl]-1-pentanone and N-[3-(4
piperidinyl)phenyl]propanamide: ESMS m/e: 461.2 (M + H).

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Example 551

 $N-(3-\{1-[5-(4-FLUOROPHENYL)-5-OXOPENTYL]-4-$ PIPERIDINYL PHENYL) CYCLOPROPANECARBOXAMIDE: Prepared by Bl using 5-chloro-1-(4-Procedure K and Scheme N-[3-(4fluorophenyl) -1-pentanone and piperidinyl)phenyl]cyclopropanecarboxamide: ESMS m/e: $423.2 (M + H)^{+}$.

Example 552

N-(3-{1-[5-(3-NITROPHENYL)-5-OXOPENTYL]-4PIPERIDINYL}PHENYL)PROPANAMIDE: Prepared by Procedure K
and Scheme B1 using 5-chloro-1-(3-nitrophenyl)-1pentanone and N-[3-(4-piperidinyl)phenyl]propanamide:
ESMS m/e: 438.2 (M + H)⁺.

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Example 553

 $N-(3-\{1-[5-(3-NITROPHENYL)-5-OXOPENTYL]-4-$ PIPERIDINYL PHENYL) CYCLOPROPANECARBOXAMIDE: Prepared by 5-chloro-1-(3-Procedure K and Scheme B1 using N-[3-(4and nitrophenyl)-1-pentanone piperidinyl) phenyl] cyclopropanecarboxamide: ESMS m/e: $450.2 (M + H)^{+}$.

N-(3-{1-[5-(2-FLUOROPHENYL)-5-OXOPENTYL]-4PIPERIDINYL}PHENYL)PROPANAMIDE: Prepared by Procedure K
and Scheme B1 using 5-chloro-1-(2-fluorophenyl)-1pentanone and N-[3-(4-piperidinyl)phenyl]propanamide:
ESMS m/e: 411.2 (M + H)⁺.

Example 555

N-(3-{1-[5-(3-FLUOROPHENYL)-5-OXOPENTYL]-4
PIPERIDINYL}PHENYL)PROPANAMIDE: Prepared by Procedure K

and Scheme B1 using 5-chloro-1-(3-fluorophenyl)-1
pentanone and N-[3-(4-piperidinyl)phenyl]propanamide:

ESMS m/e: 411.2 (M + H)⁺.

15 Example 556

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N-(3-{1-[5-(4-NITROPHENYL)-5-OXOPENTYL]-4
PIPERIDINYL}PHENYL)PROPANAMIDE: Prepared by Procedure K

and Scheme B1 using 5-chloro-1-(4-nitrophenyl)-1
pentanone and N-[3-(4-piperidinyl)phenyl]propanamide:

ESMS m/e: 438.1 (M + H)⁺.

Example 557

 $N-(3-\{1-[5-(4-NITROPHENYL)-5-OXOPENTYL]-4-$ Prepared by PIPERIDINYL PHENYL) CYCLOPROPANECARBOXAMIDE: Procedure 5-chloro-1-(4and Scheme B1 using K and N-[3-(4nitrophenyl)-1-pentanone piperidinyl)phenyl]cyclopropanecarboxamide: m/e: ESMS $450.1 (M + H)^{+}$.

30 Example 558

N-(3-{1-[5-(4-CHLOROPHENYL)-5-OXOPENTYL]-4PIPERIDINYL}PHENYL)CYCLOPROPANECARBOXAMIDE: Prepared by
Procedure K and Scheme Bl using 5-chloro-1-(4-

chlorophenyl)-1-pentanone and N-[3-(4-piperidinyl)phenyl]cyclopropanecarboxamide: ESMS m/e: 439.1 (M + H) $^+$.

Example 559

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N-[3-(1-{5-0X0-5-[2-(TRIFLUOROMETHYL)PHENYL]PENTYL}-4
PIPERIDINYL)PHENYL]PROPANAMIDE: Prepared by Procedure K

and Scheme B1 using 5-chloro-1-[2
(trifluoromethyl)phenyl]-1-pentanone and N-[3-(4
piperidinyl)phenyl]propanamide: ESMS m/e: 461.2 (M + H)⁺.

Example 560

 $N-[3-(1-\{5-0X0-5-[2-(TRIFLUOROMETHYL)PHENYL]PENTYL\}-4-$ PIPERIDINYL) PHENYL] CYCLOPROPANECARBOXAMIDE: Prepared by 5-chloro-1-[2-В1 using Procedure K and Scheme N-[3-(4-(trifluoromethyl)phenyl]-1-pentanone and piperidinyl)phenyl]cyclopropanecarboxamide: ESMS : m/e: $473.2 (M + H)^{+}$.

20 **Example 561**

N-(3-{1-[5-(4-CHLOROPHENYL)-5-OXOPENTYL]-4PIPERIDINYL}PHENYL) PROPANAMIDE: Prepared by Procedure K
and Scheme B1 using 5-chloro-1-(4-chlorophenyl)-1pentanone and N-[3-(4-piperidinyl)phenyl]propanamide:
ESMS m/e: 427.1 (M + H)⁺.

Example 562

N-(3-{1-[5-(3-CHLOROPHENYL)-5-OXOPENTYL]-4PIPERIDINYL}PHENYL)PROPANAMIDE: Prepared by Procedure K
and Scheme B1 using 5-chloro-1-(3-chlorophenyl)-1pentanone and N-[3-(4-piperidinyl)phenyl]propanamide:
ESMS m/e: 427.1 (M + H)⁺.

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 $N-(3-\{1-[5-(2-FLUOROPHENYL)-5-OXOPENTYL]-4-$ PIPERIDINYL}PHENYL) CYCLOPROPANECARBOXAMIDE: Prepared by 5-chloro-1-(2using Bl Procedure K Scheme and N - [3 - (4 and fluorophenyl)-1-pentanone m/e: piperidinyl)phenyl]cyclopropanecarboxamide: ESMS $423.1 (M + H)^{+}$.

Example 564

 $N-(3-\{1-[5-(3-CHLOROPHENYL)-5-OXOPENTYL]-4-$ 10 Prepared by PIPERIDINYL } PHENYL) CYCLOPROPANECARBOXAMIDE: 5-chloro-1-(3-B1 using and Scheme Procedure N-[3-(4and chlorophenyl)-1-pentanone piperidinyl) phenyl] cyclopropanecarboxamide: **ESMS** m/e: $439.1 (M + H)^{+}$ 15

Example 565

N-[3-(1-{5-0X0-5-[4-(TRIFLUOROMETHYL) PHENYL] PENTYL}-4-PIPERIDINYL) PHENYL] CYCLOPROPANECARBOXAMIDE: Prepared by 5-chloro-1-[4-B1 using and Scheme Procedure K 20 and N-[3-(4-(trifluoromethyl)phenyl]-1-pentanone piperidinyl)phenyl]cyclopropanecarboxamide: m/e: $473.2 (M + H)^{+}$.

25 Example 566

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N-(3-{1-[5-(2-CHLOROPHENYL)-5-OXOPENTYL]-4PIPERIDINYL}PHENYL) PROPANAMIDE: Prepared by Procedure K
and Scheme B1 using 5-chloro-1-(2-chlorophenyl)-1pentanone and N-[3-(4-piperidinyl)phenyl]propanamide:
ESMS m/e: 427.1 (M + H)⁺.

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 $N-(3-\{1-[5-(2-CHLOROPHENYL)-5-OXOPENTYL]-4-$ PIPERIDINYL PHENYL) CYCLOPROPANECARBOXAMIDE: Prepared by 5-chloro-1-(2-Scheme B1 using Procedure and and N - [3 - (4 chlorophenyl)-1-pentanone piperidinyl) phenyl] cyclopropanecarboxamide: ESMS m/e: $439.1 (M + H)^{+}$.

Example 568

 $N-[3-(1-\{5-OXO-5-[3-(TRIFLUOROMETHYL)PHENYL]PENTYL\}-4-$ 10 PIPERIDINYL) PHENYL] CYCLOPROPANECARBOXAMIDE: Prepared by 5-chloro-1-[3-Scheme B1 using K and Procedure (trifluoromethyl)phenyl]-1-pentanone N-[3-(4and **ESMS** m/e: piperidinyl)phenyl]cyclopropanecarboxamide: $473.2 (M + H)^{+}$. 15

Example 569

N-(3-{1-[4-(3,4-DIMETHYLPHENYL)-4-OXOBUTYL]-4PIPERIDINYL}PHENYL)-N,2-DIMETHYLPROPANAMIDE: Prepared

by Procedure T and Scheme AD using N-(3-{1-[4-(3,4-dimethylphenyl)-4-oxobutyl]-4-piperidinyl}phenyl)-2methylpropanamide and methyl iodide: ¹H NMR (400 MHz, CDCl₃) δ 7.76 (s, 1H), 7.72 (dd, 1H, J = 1.8, 7.7 Hz), 7.33 (t, 1H, J = 8.8 Hz), 7.22 (d, 1H, J = 7.8 Hz), 7.18

(d, 1H, J = 8.8 Hz), 7.01 (m, 2H), 3.24 (s, 3H), 3.10 (d, 1H, J = 10.6 Hz), 3.00 (t, 1H, J = 7.6 Hz), 2.49 (m, 4H), 2.33 (s, 6H), 2.11 (m, 3H), 1.99 (m, 1H), 1.79 (m, 4H), 1.26 (t, 2H, J = 7.6 Hz), 1.02 (d, 6H, J = 7.6 Hz); ESMS m/e: 435.2 (M + H)*.

Example 570

2-METHYL-N-{3-[1-(1-METHYL-4-OXO-4-PHENYLBUTYL)-4-PIPERIDINYL]PHENYL}PROPANAMIDE: Prepared by Procedure K and Scheme B1 using 4- chloro-1-phenyl-1-pentanone and 2-methyl-N-[3-(4-piperidinyl)phenyl]propanamide: ESMS m/e: 407.2 (M + H).

5 Example 571

N-[3-(1-{5-OXO-5-[3-(TRIFLUOROMETHYL)PHENYL]PENTYL}-4
PIPERIDINYL)PHENYL]PROPANAMIDE: Prepared by Procedure K

and Scheme Bl using 5-chloro-1-[3
(trifluoromethyl)phenyl]-1-pentanone and N-[3-(4
piperidinyl)phenyl]propanamide: ESMS m/e: 461.2 (M + H)⁺.

3-(5-CHLOROPENTANOYL)-4-(3,4-DIFLUOROPHENYL)-1,3-OXAZOLIDIN-2-ONE: Prepared by Procedure AF and Scheme H using 4-(3,4-difluorophenyl)-1,3-oxazolidin-2-one and 5-chloropentanoyl chloride.

3-(5-CHLOROPENTYL)-4-(3,4-DIFLUOROPHENYL)-1,3OXAZOLIDIN-2-ONE: Prepared by Procedure G and Scheme C1
using 4-(3,4-difluorophenyl)-1,3-oxazolidin-2-one and 1bromo-5-chloropentane.

Example 572

 $N-[3-(1-\{5-[(4R)-4-(3,4-DIFLUOROPHENYL)-2-OXO-1,3-OXAZOLIDIN-3-YL]-5-OXOPENTYL\}-4-PIPERIDINYL)$ PHENYL]-2-

METHYLPROPANAMIDE: Prepared by Procedure G and Scheme B1 using (4R)-3-(5-chloropentanoyl)-4-(3,4-difluorophenyl)-1,3-oxazolidin-2-one and 2-methyl-N-[3-(4-piperidinyl)phenyl]propanamide: ESMS m/e: 528.2 (M + H).

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Example 573

(4R) -4-(3,4-DIFLUOROPHENYL) -N-(3-{4-[3-(ISOBUTYRYLAMINO) PHENYL]-1-PIPERIDINYL}PROPYL)-2-OXO-

CARBOXAMIDE: Prepared by 1,3-OXAZOLIDINE-3-Procedure AF and Scheme H using 4-nitrophenyl (4R)-4-(3,4-difluorophenyl)-2-oxo-1,3-oxazolidine-3-carboxylate $N-\{3-[1-(3-aminopropyl)-4-piperidinyl]phenyl\}-2$ methylpropanamide: ¹H NMR (400 MHz, CDCl₃) δ 8.08 (t, 1H, 5 J = 5.5 Hz), 7.45 (S, 2H), 7.38 (d, 1H, J = 8.6 Hz), 7.24-7.12 (m, 3H), 7.06 (m, 1H), 6.97 (d, 1H, J=8.6Hz), 5.40 (dd, 1H, J = 3.9, 8.8 Hz), 4.71 (t, 1H, J = 8.8Hz), 4.23 (dd, 1H, J = 4.4, 9.1 Hz), 3.32 (qt, 2H, J =6.1 Hz), 2.99 (d, 2H, J = 11.0 Hz), 2.49 (qt, 2H, J = 11.0 Hz)10 7.0 Hz), 2.41 (t, 2H, J = 7.0 Hz), 1.99 (m, 2H), 1.82 -1.68 (m, 6H), 1.23 (d, 6H, J = 7.3 Hz); ESMS m/e: 529.1 $(M + H)^+$.

- (4s)-3-(5-CHLOROPENTYL)-4-(3,4-DIFLUOROPHENYL)-1,3-OXAZOLIDIN-2-ONE: Prepared by Procedure G and Scheme C1 using (4s)-4-(3,4-difluorophenyl)-1,3-oxazolidin-2-one and 1-bromo-5-chloropentane.
- Example 574 20 $N-[3-(1-\{5-[(4S)-4-(3,4-DIFLUOROPHENYL)-2-OXO-1,3-$ OXAZOLIDIN-3-YL] PENTYL]-4-PIPERIDINYL) PHENYL]-2-Prepared by Procedure G and Scheme METHYLPROPANAMIDE: B1 using (4S)-3-(5-chloropentyl)-4-(3,4-difluorophenyl)-2-methyl-N-[3-(4-1,3-oxazolidin-2-one and 25 piperidinyl)phenyl]propanamide: ^{1}H NMR (400 MHz, CDCl₃) δ 7.48 (s, 1H), 7.32 (d, 1H, J = 8.6 Hz), 7.26-7.21 (m, 2H), 7.20-7.12 (m, 2H), 7.06 (m, 1H), 6.97 (d, 1H, J = 6.96 Hz), 4.76 (dd, 1H, J = 6.3, 8.3 Hz), 4.62 (t, 1H, J)= 9.0 Hz), 4.06 (dd, 1H, J = 6.4, 8.7 Hz), 3.46 (m, 1H), 30 3.0 (d, 2H, J = 9.0 Hz), 2.77 (q, 1H, J = 6.8 Hz), 2.50(q, 2H, J = 6.8 Hz), 2.31 (t, 2H, J = 6.8 Hz), 2.01 (m,4H), 1.81 (m, 4H), 1.48 (m, 4H), 1.26 (d, 6H, J = 7.3

Hz); Anal. Calcd for $C_{28}H_{37}F_2N_3O_3+HCl+0.25CHCl_3$: C, 60.6; H, 6.65; N, 7.25. Found: C, 60.7; H, 6.91; N, 7.05; ESMS m/e: 514.2 $(M + H)^+$.

5 Example 575

N-[3-(1-{5-[(4S)-4-(3,4-DIFLUOROPHENYL)-2-OXO-1,3-OXAZOLIDIN-3-YL]-5-OXOPENTYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE: Prepared by Procedure G and Scheme B1 using (4S)-3-(5-chloropentanoyl)-4-(3,4-difluorophenyl)-1,3-oxazolidin-2-one and 2-methyl-N-[3-(4-piperidinyl)phenyl]propanamide: ESMS m/e: 528.1 (M + H)⁺.

Example 576

(4S)-4-(3,4-DIFLUOROPHENYL)-N-(3-{4-[3-(ISOBUTYRYLAMINO) PHENYL]-1-PIPERIDINYL}PROPYL)-2-OXO
1,3-OXAZOLIDINE-3-CARBOXAMIDE: Prepared by Procedure AF and Scheme H using 4-nitrophenyl (4S)-4-(3,4-difluorophenyl)-2-oxo-1,3-oxazolidine-3-carboxylate and N-{3-[1-(3-aminopropyl)-4-piperidinyl]phenyl}-2-methylpropanamide: ESMS m/e: 529.1 (M + H)⁺.

Example 577

(4s) -N-(3-{4-[3-(ISOBUTYRYLAMINO) PHENYL]-1PIPERIDINYL}PROPYL)-2-OXO-4-(3,4,5-TRIFLUOROPHENYL)-1,3OXAZOLIDINE-3-CARBOXAMIDE: Prepared by Procedure AF and
Scheme H using 4-nitrophenyl (4s)-4-(3,4difluorophenyl)-2-oxo-1,3-oxazolidine-3-carboxylate and
N-{3-[1-(3-aminopropyl)-4-piperidinyl]phenyl}-2methylpropanamide: ESMS m/e: 547.1 (M + H).

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Example 578

(4s) -4-(3,5-DIFLUOROPHENYL) -N- $(3-\{4-[3-(150BUTYRYLAMINO) PHENYL]$ -1-PIPERIDINYL $\}$ PROPYL) -2-OXO-

1,3-OXAZOLIDINE-3- CARBOXAMIDE: Prepared by Procedure AF and Scheme H using 4-nitrophenyl (4S)-4-(3,4-difluorophenyl)-2-oxo-1,3-oxazolidine-3-carboxylate and N- $\{3-[1-(3-aminopropyl)-4-piperidinyl]phenyl\}-2-methylpropanamide: ESMS <math>m/e$: 529.2 $(M + H)^{+}$.

Example 579

 $N-(3-\{1-[3-(PHENYLSULFANYL)PROPYL]-4-$

PIPERIDINYL) PHENYL) PROPANAMIDE: Prepared by Procedure G and Scheme B1 using [(3-chloropropyl) sulfanyl] benzene and N-[3-(4-piperidinyl) phenyl] propanamide: ESMS m/e: 382.9 (M + H)⁺.

Example 580

 $N-(3-\{1-[3-(PHENYLSULFANYL)PROPYL]-4-$

PIPERIDINYL PHENYL) CYCLOPROPANECARBOXAMIDE: Prepared by Procedure G and Scheme B1 using [(3-chloropropyl) sulfanyl] benzene and N-{3-(4-piperidinyl) phenyl] cyclopropanecarboxamide: ESMS m/e: 395.1 (M + H)⁺.

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Example 581

 $(M + H)^+$.

2-METHYL-N-(3-{1-[3-(PHENYLSULFANYL) PROPYL]-4PIPERIDINYL}PHENYL) PROPANAMIDE: Prepared by Procedure G
and Scheme B1 using [(3-chloropropyl) sulfanyl] benzene
and 2-methyl-N-[3-(4-piperidinyl) phenyl] propanamide: ¹H
NMR (400 MHz, CDCl₃) δ 7.63 (s, 1H), 7.48 (s, 1H), 7.33
(m, 3H), 7.27 (t, 2H, J = 7.5 Hz), 7.20 (t, 1H, J = 7.9
Hz), 7.15 (tt, 1H, J = 7.2, 1.4 Hz), 6.95 (d, 1H, J =
7.6 Hz), 2.97 (t, 4H, J = 7.3 Hz), 2.46 (m, 4H), 1.99
(dt, 2H, J = 11.4, 3.0 Hz), 1.84 (qt, 2H, J = 7.3 Hz),

1.77 (m, 4H), 1.21 (d, 6H, J = 6.8 Hz); ESMS m/e: 396.8

N-(3-{1-[6-(PHENYLSULFANYL)HEXYL]-4PIPERIDINYL}PHENYL)CYCLOPROPANECARBOXAMIDE: Prepared by
Procedure G and Scheme B1 using [(6chlorohexyl)sulfanyl]benzene and N-[3-(4piperidinyl)phenyl]cyclopropanecarboxamide: ESMS m/e:
437.4 (M + H)*.

Example 583

N-(3-{1-[4-(PHENYLSULFANYL)BUTYL]-4PIPERIDINYL}PHENYL)PROPANAMIDE: Prepared by Procedure G
and Scheme B1 using [(4-chlorobutyl)sulfanyl]benzene and
N-[3-(4-piperidinyl)phenyl]propanamide: ESMS m/e: 396.8
(M + H).

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Example 584

 $N-(3-\{1-[4-(PHENYLSULFANYL)BUTYL]-4-$ PIPERIDINYL PHENYL) CYCLOPROPANECARBQXAMIDE: Prepared by [(4using Procedure G and Scheme B1 N-[3-(4chlorobutyl) sulfanyl] benzene and piperidinyl)phenyl]cyclopropanecarboxamide: **ESMS** m/e: $409.5 (M + H)^{+}$.

Example 585

2-METHYL-N-(3-{1-[4-(PHENYLSULFANYL)BUTYL]-4PIPERIDINYL}PHENYL)PROPANAMIDE: Prepared by Procedure G
and Scheme B1 using [(4-chlorobutyl)sulfanyl]benzene and
2-methyl-N-[3-(4-piperidinyl)phenyl]propanamide: ESMS
m/e: 410.6 (M + H)⁺.

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Example 586

2-METHYL-N-(3-{1-[5-(PHENYLSULFANYL)PENTYL]-4PIPERIDINYL}PHENYL)PROPANAMIDE: Prepared by Procedure G

and Scheme Bl using [(5-chloropentyl)sulfanyl]benzene and 2-methyl-N-[3-(4-piperidinyl)phenyl]propanamide: ESMS m/e: 425.1 (M + H)⁺.

Example 587

 $N-(3-\{1-[5-(PHENYLSULFANYL)PENTYL]-4-$ PIPERIDINYL PHENYL) CYCLOPROPANECARBOXAMIDE: Prepared by using [(5-Scheme B1 Procedure G and N - [3 - (4 chloropentyl)sulfanyl]benzene and piperidinyl)phenyl]cyclopropanecarboxamide: m/e: ESMS $423.1 (M + H)^{+}$.

[(6-CHLOROHEXYL)SULFANYL]BENZENE: Prepared by Procedure R and Scheme Z using benzenethiol and 1-bromo-6-chlorohexane.

[(4-CHLOROBUTYL) SULFANYL] BENZENE: Prepared by Procedure R and Scheme Z using benzenethiol and 1-bromo-4-chlorobutane.

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Example 588

N-(3-{1-[6-(PHENYLSULFANYL)HEXYL]-4PIPERIDINYL}PHENYL)PROPANAMIDE: Prepared by Procedure G
and Scheme B1 using [(6-chlorohexyl)sulfanyl]benzene and
N-[3-(4-piperidinyl)phenyl]propanamide: ESMS m/e: 425.4
(M + H)*.

[(5-CHLOROPENTYL) SULFANYL] BENZENE: Prepared by Procedure R and Scheme Z using benzenethiol and 1-bromo-5-chloropentane.

[(3-CHLOROPROPYL)SULFANYL]BENZENE: Prepared by Procedure R and Scheme Z using benzenethiol and 1-bromo-

3-chloropropane: ^{1}H NMR (400 MHz, CDCl₃) δ 7.37-7.34 (m, 2H), 7.32-7.26 (m, 2H), 7.19 (tt, 1H, J = 1.4, 7.3 Hz), 3.67 (t, 2H, J = 6.6 Hz), 3.08 (t, 2H, J = 6.6 Hz), 2.06 (qt, 2H, J = 6.6 Hz).

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Example 589

N-(3-{1-[5-(PHENYLSULFANYL)PENTYL]-4-

PIPERIDINYL) PHENYL) PROPANAMIDE: Prepared by Procedure G and Scheme B1 using [(5-chloropentyl) sulfanyl] benzene and N-[3-(4-piperidinyl) phenyl] propanamide: ESMS m/e: 411.1 $(M + H)^+$.

3-CHLOROPROPYL 4-FLUOROPHENYL SULFIDE: Prepared by Procedure R and Scheme Z using 4-fluorobenzenethiol and 1-bromo-3-chloropropane.

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- 1-BROMO-2-[(3-CHLOROPROPYL)SULFANYL]BENZENE: Prepared by Procedure R and Scheme Z using 2-bromobenzenethicl and 1-bromo-3-chloropropane.
- 3-CHLOROPROPYL 4-FLUOROPHENYL SULFOXIDE: Prepared by Procedure S and Scheme AA using 3-chloropropyl 4-fluorophenyl sulfide and 1 eq m-CPBA: ¹H NMR (400 MHz, CDCl₃) δ 7.65-7.62 (m, 2H), 7.28-7.21 (m, 2H), 3.65 (m, 2H), 2.94 (m, 2H), 2.28 (m, 1H), 2.06 (m, 1H); ESMS m/e: 220.9 (M + H)⁺.
 - 3-CHLOROPROPYL 3-FLUOROPHENYL SULFIDE: Prepared by Procedure R and Scheme Z using 3-fluorobenzenethiol and 1-bromo-3-chloropropane.

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3-CHLOROPROPYL 2-FLUOROPHENYL SULFIDE: Prepared by Procedure R and Scheme Z using 2-fluorobenzenethiol and 1-bromo-3-chloropropane.

1-BROMO-2-[(3-CHLOROPROPYL) SULFINYL] BENZENE: Prepared by Procedure S and Scheme AA using 1-bromo-2-[(3-chloropropyl) sulfanyl] benzene and 1 eq m-CPBA: ESMS m/e: 282.8 (M + H)⁺.

1-CHLORO-2-[(3-CHLOROPROPYL)SULFANYL]BENZENE: Prepared by Procedure R and Scheme Z using 2-chlorobenzenethiol and 1-bromo-3-chloropropane.

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1-CHLORO-3-[(3-CHLOROPROPYL)SULFANYL]BENZENE: Prepared by Procedure R and Scheme Z using 3-chlorobenzenethiol and 1-bromo-3-chloropropane.

15 1-CHLORO-4-[(3-CHLOROPROPYL)SULFANYL]BENZENE: Prepared by Procedure R and Scheme Z using 4-chlorobenzenethiol and 1-bromo-3-chloropropane.

1-BROMO-3-[(3-CHLOROPROPYL)SULFANYL]BENZENE: Prepared
by Procedure R and Scheme Z using 3-bromobenzenethiol
and 1-bromo-3-chloropropane.

1-BROMO-4-[(3-CHLOROPROPYL)SULFANYL]BENZENE: Prepared by Procedure R and Scheme Z using 4-bromobenzenethiol and 1-bromo-3-chloropropane.

3-CHLOROPROPYL 3,4-DIMETHYLPHENYL SULFIDE: Prepared by Procedure R and Scheme Z using 3,4-dimethylbenzenethiol and 1-bromo-3-chloropropane.

30 **Example 590**

N-[3-(1-{3-[(4-FLUOROPHENYL)SULFINYL]PROPYL}-4PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE: Prepared by
Procedure G and Scheme B1 using 3-chloropropyl 4-

fluorophenyl sulfoxide and 2-methyl-N-[3-(4-piperidinyl)phenyl]propanamide: ^{1}H NMR (400 MHz, CDCl₃) δ 7.64 (m, 2H), 7.53 (s, 1H), 7.24 (m, 5H), 6.94 (d, 1H, J = 7.7 Hz), 2.89 (m, 4H), 2.45 (m, 4H), 1.99 (m, 3H), 1.77 (m, 5H), 1.24 (d, 6H, J = 6.8 Hz); Anal. Calcd for $C_{24}H_{31}FN_{2}O_{2}S+0.6EtOAc$: C, 65.5; H, 7.45; N, 5.79. Found: C, 65.4; H, 7.30; N, 5.73; ESMS m/e: 431.1 (M + H) $^{+}$.

Example 591

 $N-[3-(1-{3-[(2-BROMOPHENYL)SULFINYL]PROPYL}-4-$ PIPERIDINYL) PHENYL] - 2 - METHYLPROPANAMIDE: Prepared by 1-bromo-2-[(3-G. and Scheme B1 using Procedure chloropropyl) sulfinyl] benzene and 2-methyl-N-[3-(4-Calcd piperidinyl)phenyl]propanamide: Anal. $C_{24}H_{31}BrN_2O_2S+0.3CHCl_3$: ESMS m/e: 491.0 (M + H)⁺.

Example 592

 $N-\{3-[1-((3s)-3-\{[(3,4-DIFLUOROPHENYL)SULFONYL]AMINO\}-3-PHENYLPROPYL)-4-PIPERIDINYL]PHENYL\}-2-METHYLPROPANAMIDE: Prepared by Procedure Q1 and Scheme AC using 3,4-difluorobenzenesulfonyl chloride and <math>N-(3-\{1-[(3s)-3-amino-3-phenylpropyl]-4-piperidinyl\}phenyl)-2-methylpropanamide: ESMS <math>m/e$: 556.2 (M + H).

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Example 593

3-CHLORO-N-((1s)-3-{4-[3-(ISOBUTYRYLAMINO)PHENYL]-1-PIPERIDINYL}-1-PHENYLPROPYL)-2-THIOPHENECARBOXAMIDE:

Prepared by Procedure Q1 and Scheme AC using 3-chloro-2-thiophenecarbonyl chloride and N-(3-{1-[(3s)-3-amino-3-phenylpropyl]-4-piperidinyl}phenyl)-2-methylpropanamide:

ESMS m/e: 524.2 (M + H)⁺.

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N-(3-{1-[(3s)-3-({[5-(DIMETHYLAMINO)-1-NAPHTHYL]SULFONYL}AMINO)-3-PHENYLPROPYL]-4-PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by Procedure Q1 and Scheme AC using 5-(dimethylamino)-1-naphthalenesulfonyl chloride and N-(3-{1-[(3s)-3-amino-3-phenylpropyl]-4-piperidinyl}phenyl)-2-methylpropanamide: ESMS m/e: 613.3 (M + H)⁺.

Example 595

2-METHYL-N-{3-[1-((3S)-3-{[(4-METHYLPHENYL)SULFONYL]AMINO}-3-PHENYLPROPYL)-4-PIPERIDINYL]PHENYLPROPANAMIDE: Prepared by Procedure Q1 and Scheme AC using 4-methylbenzenesulfonyl chloride and N-(3-{1-[(3S)-3-amino-3-phenylpropyl]-4-piperidinyl}phenyl)-2-methylpropanamide: ESMS m/e: 534.2 (M + H)⁺.

Example 596

 $N-\{3-[1-((3s)-3-\{[(3,5-DICHLORO-2-$ HYDROXYPHENYL) SULFONYL] AMINO } - 3 - PHENYLPROPYL) - 4 -20 PIPERIDINYL] PHENYL } - 2 - METHYLPROPANAMIDE: Prepared AC using 3,5-dichloro-2-Procedure and Scheme Q1 hydroxybenzenesulfonyl $N - (3 - \{1 - [(3S) - 3$ chloride and amino-3-phenylpropyl]-4-piperidinyl}phenyl)-2-

methylpropanamide: ESMS m/e: 605.4 (M + H).

Example 597

2-METHYL-N-[3-(1-{(3s)-3-[(METHYLSULFONYL)AMINO]-3-PHENYLPROPYL}-4-PIPERIDINYL)PHENYL]PROPANAMIDE:

Prepared by Procedure Q1 and Scheme AC using methanesulfonyl chloride and $N-(3-\{1-[(3S)-3-amino-3-phenylpropyl]-4-piperidinyl\}phenyl)-2-methylpropanamide: ESMS <math>m/e$: 458.6 (M + H)⁺.

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 $N-\{3-[1-((3S)-3-\{[(4-FLUOROPHENYL)SULFONYL]AMINO\}-3-PHENYLPROPYL)-4-PIPERIDINYL]PHENYL\}-2-METHYLPROPANAMIDE: Prepared by Procedure Q1 and Scheme AC using 4-fluorobenzenesulfonyl chloride and <math>N-(3-\{1-[(3S)-3-amino-3-phenylpropyl]-4-piperidinyl\}phenyl)-2-methylpropanamide: ESMS <math>m/e$: 538.1 (M + H)[†].

Example 599

N-{3-[1-((3S)-3-{[(4-TERT-BUTYLPHENYL)SULFONYL]AMINO}-3-PHENYLPROPYL)-4-PIPERIDINYL]PHENYL}-2-METHYLPROPANAMIDE:

Prepared by Procedure Q1 and Scheme AC using 4-tert-butylbenzenesulfonyl chloride and N-(3-{1-[(3S)-3-amino-3-phenylpropyl]-4-piperidinyl}phenyl)-2
methylpropanamide: ESMS m/e: 576.2 (M + H)⁺.

Example 600

 $N-\{3-[1-((3s)-3-\{[(2,5-DiChLorophenyL)SulfonyL]AMINO\}-3-PHENYLPROPYL)-4-PIPERIDINYL]PHENYL\}-2-METHYLPROPANAMIDE:

Prepared by Procedure Q1 and Scheme AC using 2,5-dichlorobenzenesulfonyl chloride and <math>N-(3-\{1-[(3s)-3-amino-3-phenylpropyl]-4-piperidinyl\}phenyl)-2-methylpropanamide: ESMS <math>m/e$: 588.0 (M + H) $^+$.

Example 601

2-METHYL-N-[3-(1-{(3s)-3-PHENYL-3[(PROPYLSULFONYL) AMINO] PROPYL}-4PIPERIDINYL) PHENYL] PROPANAMIDE: Prepared by Procedure
Q1 and Scheme AC using 1-propanesulfonyl chloride and N(3-{1-[(3s)-3-amino-3-phenylpropyl]-4piperidinyl}phenyl)-2-methylpropanamide: ESMS m/e: 486.2
(M + H)⁺.

 $N-\{3-[1-((3s)-3-\{[(3,5-DIMETHYL-4-$

ISOXAZOLYL) SULFONYL] AMINO}-3-PHENYLPROPYL)-4-

Prepared PIPERIDINYL] PHENYL } - 2 - METHYLPROPANAMIDE: Scheme AC using 3,5-dimethyl-4and Procedure 01 5 phenylpropyl]-4-piperidinyl}phenyl)-2-methylpropanamide: ^{1}H NMR (400 MHz, CDCl₃) δ 7.53 (s, 2H), 7.3-7.1 (m, 5H), 7.05 (t, 2H, J = 6.5 Hz), 6.81 (d, 1H, J = 7.1 Hz), 4.65 (dd, 1H, J = 6.3, 2.2 Hz), 3.11 (t, 2H, J = 7.2 Hz), 2.410 (m, 4H), 2.2 (s, 3H), 2.05 (m, 2H), 2.01 (s, 3H), 2.0-1.8 (m, 7H), 1.21 (d, 6H, J = 7.1 Hz); ESMS m/e: 539.5 $(M + H)^{\dagger}$.

Example 603

METHYL 3-{[(3-{4-[3-(ISOBUTYRYLAMINO) PHENYL]-1-PIPERIDINYL}PROPYL) AMINO] SULFONYL}-2-

THIOPHENECARBOXYLATE: Prepared Procedure Q1 and Scheme AC using methyl 3-(chlorosulfonyl)-2-thiophenecarboxylate and $N-\{3-[1-(3-aminopropyl)-4-piperidinyl]phenyl\}-2-methylpropanamide: Anal. Calcd for <math>C_{24}H_{33}N_3O_5S$.HCl: C, 6.00; H, 5.30; N, 7.72. Found: C, 52.9; H, 6.04; N, 7.59; ESMS m/e: 508.2 (M + H) $^+$.

25 Example 604

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 $2-METHYL-N-{3-[1-((3S)-3-{[(4-$

PHENOXYANILINO) CARBONYL] AMINO } - 3 - PHENYLPROPYL) - 4 -

PIPERIDINYL] PHENYL PROPANAMIDE: Prepared by Procedure P and Scheme AB using 1-isocyanato-4-phenoxybenzene and N-(3-{1-[(3S)-3-amino-3-phenylpropyl]-4-

piperidinyl}phenyl)-2-methylpropanamide: ESMS m/e: 591.3 $(M + H)^+$.

PIPERIDINYL] PHENYL}-2-

METHYLPROPANAMIDE:

Prepared by Procedure Q1 and Scheme AC using 3,5-dimethyl-4-isoxazolesulfonyl chloride and $N-(3-\{1-[(3S)-3-mino-3-phenylpropyl]-4-piperidinyl\}phenyl)-2-$

5 methylpropanamide: ^{1}H NMR (400 MHz, CDCl₃) δ 7.53 (s, 2H), 7.3-7.1 (m, 5H), 7.05 (t, 2H, J = 6.5 Hz), 6.81 (d, 1H, J = 7.1 Hz), 4.65 (dd, 1H, J = 6.3, 2.2 Hz), 3.11 (t, 2H, J = 7.2 Hz), 2.4 (m, 4H), 2.2 (s, 3H), 2.05 (m, 2H), 2.01 (s, 3H), 2.0-1.8 (m, 7H), 1.21 (d, 6H, J = 7.1 Hz); ESMS m/e: 539.5 (M + H)⁺.

Example 603

METHYL 3-{[(3-{4-[3-(ISOBUTYRYLAMINO) PHENYL]-1-PIPERIDINYL}PROPYL) AMINO] SULFONYL}-2-

THIOPHENECARBOXYLATE: Prepared Procedure Q1 and Scheme AC using methyl 3-(chlorosulfonyl)-2-thiophenecarboxylate and N-{3-[1-(3-aminopropyl)-4-piperidinyl]phenyl}-2-methylpropanamide: Anal. Calcd for C₂₄H₃₃N₃O₅S.HCl: C, 6.00; H, 5.30; N, 7.72. Found: C, 52.9; H, 6.04; N, 7.59; ESMS m/e: 508.2 (M + H)⁺.

Example 604

 $2-METHYL-N-{3-[1-((3S)-3-{[(4-$

PHENOXYANILINO) CARBONYL] AMINO } - 3 - PHENYLPROPYL) - 4 -

PIPERIDINYL] PHENYL PROPANAMIDE: Prepared by Procedure P and Scheme AB using 1-isocyanato-4-phenoxybenzene and N-(3-{1-[(3S)-3-amino-3-phenylpropyl]-4-piperidinyl}phenyl)-2-methylpropanamide: ESMS m/e: 591.3 (M + H)*.

Example 605

3.0

N-[3-(1-{(3S)-3-[(ANILINOCARBONYL)AMINO]-3-PHENYLPROPYL}-4-PIPERIDINYL)PHENYL}-2-METHYLPROPANAMIDE: Prepared by Procedure P and Scheme AB using isocyanatobenzene and $N-(3-\{1-[(3S)-3-amino-3-phenylpropyl]-4-piperidinyl\}phenyl)-2-methylpropanamide: ESMS <math>m/e$: 499.2 (M + H)⁺.

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Example 606

 $N-\{3-[1-((3S)-3-\{[(TERT-BUTYLAMINO)CARBOTHIOYL]AMINO\}-3-PHENYLPROPYL)-4-PIPERIDINYL]PHENYL\}-2-METHYLPROPANAMIDE:$

Prepared by Procedure P and Scheme AB using 2-

isothiocyanato-2-methylpropane and N-(3-{1-[(3S)-3-amino-3-phenylpropyl]-4-piperidinyl}phenyl)-2-methylpropanamide: ESMS m/e: 495.1 (M + H).

Example 607

N-{3-[1-((3S)-3-{[(2-FLUOROANILINO) CARBONYL] AMINO}-3-PHENYLPROPYL)-4-PIPERIDINYL] PHENYL}-2-METHYLPROPANAMIDE:

Prepared by Procedure P and Scheme AB using 1-fluoro-2-isocyanatobenzene and N-(3-{1-[(3S)-3-amino-3-phenylpropyl]-4-piperidinyl}phenyl)-2-methylpropanamide:

ESMS m/e: 517.0 (M + H)⁺.

Example 608

2-METHYL-N-[3-(1-{(3S)-3-PHENYL-3-[(2-TOLUIDINOCARBOTHIOYL)AMINO]PROPYL}-4-

PIPERIDINYL) PHENYL] PROPANAMIDE: Prepared by Procedure P and Scheme AB using 1-isothiocyanato-2-methylbenzene and N-(3-{1-[(3S)-3-amino-3-phenylpropyl]-4-piperidinyl}phenyl)-2-methylpropanamide: ESMS m/e: 529.1

(M + H)*.

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Example 609

N-{3-[1-((35)-3-{[(BENZYLAMINO)CARBONYL]AMINO}-3-PHENYLPROPYL)-4-PIPERIDINYL]PHENYL}-2-METHYLPROPANAMIDE: phenylpropyl] -4- piperidinyl phenyl) -2-methylpropanamide: ^{1}H NMR (400 MHz, CDCl₃) δ 8.44 (s, 1H), 7.67 (d, 1H, J = 7.9 Hz), 7.31-7.13 (m, 13H), 6.38 (s, 1H), 6.80 (d, 1H, J = 7.9 Hz), 5.54 (m, 1H), 4.81 (m, 1H), 4.41 (dd, 1H, J = 14.8, 6.2 Hz), 4.29 (dd, 1H, J = 14.9, 5.4 Hz), 2.99 (d, 1H, J = 11.2 Hz), 2.87 (d, 1H, J = 11.2 Hz), 2.67 (q, 1H, J = 6.2 Hz), 2.3 (m, 3H), 2.0-1.5 (m, 7H), 1.23 (d, 6H, J = 6.7 Hz); ESMS m/e: 513.2 (M + H)⁺.

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Example 610

 $2-METHYL-N-{3-[1-((3s)-3-{[(2-$

NITROANILINO) CARBONYL] AMINO } - 3 - PHENYLPROPYL) - 4 -

propertional phenyl propanamide: Prepared by Procedure P and Scheme AB using 1-isocyanato-2-nitrobenzene and N-(3-{1-[(3S)-3-amino-3-phenyl propyl]-4-

piperidinyl}phenyl)-2-methylpropanamide: ESMS m/e: 543.6 (M + H).

20 **Example 611**

 $N-\{3-[1-((3s)-3-\{[(3,4-DiChLorOaniLino)CarbonyL]AMINO\}-3-PHENYLPROPYL)-4-PIPERIDINYL]PHENYL}-2-$

METHYLPROPANAMIDE: Prepared by Procedure P and Scheme AB using 1,2-dichloro-4-isocyanatobenzene and $N-(3-\{1-[(3S)-3-amino-3-phenylpropyl]-4-piperidinyl\}phenyl)-2-methylpropanamide: ESMS <math>m/e$: 567.1 (M + H) $^+$.

Example 612

 $2-METHYL-N-(3-{1-[(3S)-3-({[2-$

(METHYLSULFANYL) ANILINO] CARBONYL AMINO) - 3-PHENYLPROPYL] 4-PIPERIDINYL PHENYL) PROPANAMIDE: Prepared by Procedure
P and Scheme AB using 1-isocyanato-2(methylsulfanyl) benzene and N-(3-{1-[(3S)-3-amino-3-

phenylpropyl]-4- piperidinyl}phenyl)-2- methylpropanamide: ESMS m/e: 545.0 (M + H) $^{+}$.

Example 613

5 PIPERIDINYL] PHENYL}-2-METHYLPROPANAMIDE: Prepared by 1-fluoro-4-AB using Procedure Р and Scheme $N - \{3 - [1 - (3 - aminopropy1) - 4 - (3 - aminopropy1) - (3 - aminopropy1)$ isocyanatobenzene and piperidinyl]phenyl}-2-methylpropanamide: MHz, CDCl₃) δ 7.45 (q, 2H, J = 4.7 Hz), 7.23 (m, 4H), 10 7.05 (t, 4H, J = 7.8 Hz), 6.75 (m, 1H), 4.05 (m, 3.19 (s, 1H), 2.71 (m, 1H), 2.53 (m, 1H), 2.25 (m, 1.8 (m, 9H), 1.25 (d, 6H, J = 6.4 Hz); ESMS m/e: 441.1 $(M + H)^+$

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Example 614

 $N-{3-[1-(3-{[(3,4-$

DICHLOROANILINO) CARBONYL] AMINO PROPYL) -4-

PIPERIDINYL] PHENYL}-2-METHYLPROPANAMIDE: Prepared by

20 Procedure P and Scheme AB using 1,2-dichloro-4isocyanatobenzene and N-{3-[1-(3-aminopropyl)-4piperidinyl] phenyl}-2-methylpropanamide: ESMS m/e: 493.2
(M + H).

25 **Example 615**

 $2-METHYL-N-[3-(1-{3-[(2-$

TOLUIDINOCARBOTHIOYL) AMINO] PROPYL}-4-

PIPERIDINYL) PHENYL] PROPANAMIDE: Prepared by Procedure P
and Scheme AB using 1-isothiocyanato-2-methylbenzene and
N-{3-[1-(3-aminopropyl)-4-piperidinyl] phenyl}-2methylpropanamide: ESMS m/e: 453.2 (M + H)⁺.

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N-{3-[1-(3-{[(BENZYLAMINO) CARBONYL] AMINO}PROPYL)-4PIPERIDINYL]PHENYL}-2-METHYLPROPANAMIDE: Prepared by
Procedure P and Scheme AB using
(isocyanatomethyl)benzene and N-{3-[1-(3-aminopropyl)-4piperidinyl]phenyl}-2-methylpropanamide: ESMS m/e: 437.2
(M + H)*.

Example 617

10 PIPERIDINYL] PHENYL } - 2 - METHYLPROPANAMIDE: Prepared by using 1-ethoxy-4and Scheme AΒ Procedure $N - \{3 - [1 - (3 - aminopropyl) - 4 - [3 - [1 - (3 - aminopropyl)] - 4 - [3 - [1 - (3 - aminopropyl)] - 4 - [1 - (3 - aminopropyl)] - [1 - (3 - aminopropyl)]$ isocyanatobenzene and piperidinyl]phenyl}-2-methylpropanamide: ESMS m/e: 467.2 $(M + H)^{'+}$. 15

Example 618

N-[3-(1-{3-[(ANILINOCARBONYL)AMINO]PROPYL}-4PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE: Prepared by

Procedure P and Scheme AB using isocyanatobenzene and N{3-[1-(3-aminopropyl)-4-piperidinyl]phenyl}-2methylpropanamide: ESMS m/e: 422.9 (M + H)⁺.

Example 619

25 2-METHYL-N-(3-{1-[3-({[2-(METHYLSULFANYL)ANILINO]CARBONYL}AMINO)PROPYL]-4PIPERIDINYL}PHENYL)PROPANAMIDE: Prepared by Procedure P
and Scheme AB using 1-isocyanato-2(methylsulfanyl)benzene and N-{3-[1-(3-aminopropyl)-4piperidinyl]phenyl}-2-methylpropanamide: ESMS m/e: 469.1
(M + H)*.

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N-{3-[1-(3-{[(TERT-BUTYLAMINO) CARBOTHIOYL] AMINO} PROPYL) - 4-PIPERIDINYL] PHENYL}-2-METHYLPROPANAMIDE: Prepared by Procedure P and Scheme AB using 2-isothiocyanato-2-methylpropane and N-{3-[1-(3-aminopropyl)-4-piperidinyl] phenyl}-2-methylpropanamide: ESMS m/e: 419.0 (M + H)⁺.

Example 621

2-METHYL-N-{3-[1-(3-{[(4-PHENOXYANILINO)CARBONYL]AMINO}PROPYL)-4-PIPERIDINYL]PHENYL}PROPANAMIDE: Prepared by Procedure Pand Scheme AB using 1-isocyanato-4-phenoxybenzene and N-{3-[1-(3-aminopropyl)-4-piperidinyl]phenyl}-2-methylpropanamide: ESMS m/e: 515.5 (M + H)⁺.

Example 622

N-(3-{4-[3-(ACETYLAMINO)PHENYL]-1-PIPERIDINYL}PROPYL)-4(2,4-DIFLUOROPHENYL)-2-METHYL-6-OXO-1,4,5,6-TETRAHYDRO
3-PYRIDINECARBOXAMIDE: Prepared by Procedure AC and Scheme AM using N-{3-[1-(3-aminopropyl)-4-piperidinyl]phenyl}acetamide and 4-(2,4-difluorophenyl)-2-methyl-6-oxo-1,4,5,6-tetrahydro-3-pyridinecarboxylic acid: ESMS m/e: 525.2 (M + H)⁺.

Example 623

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N-(3-{4-[3-(ACETYLAMINO) PHENYL]-1-PIPERIDINYL}PROPYL)-4(3,4-DIFLUOROPHENYL)-2-METHYL-6-OXO-1,4,5,6-TETRAHYDRO3-PYRIDINECARBOXAMIDE: Prepared by Procedure AC and Scheme AM using N-{3-[1-(3-aminopropyl)-4-piperidinyl]phenyl}acetamide and 4-(3,4 -difluorophenyl)-2-methyl-6-oxo-1,4,5,6-tetrahydro-3-pyridinecarboxylic acid: ESMS m/e: 525.2 (M + H)⁺.

N-(6-{4-[3-(ISOBUTYRYLAMINO) PHENYL]-1-PIPERIDINYL}HEXYL)-1-(4-NITROPHENYL)-5-

(TRIFLUOROMETHYL)-1H-PYRAZOLE-4-CARBOXAMIDE: Prepared by Procedure Q1 (THF) and Scheme AT using N-{3-[1-(6-aminohexyl)-4-piperidinyl]phenyl}-2-methylpropanamide and 1-(4-nitrophenyl)-5-(trifluoromethyl)-1H-pyrazole-4-carbonyl chloride: ESMS m/e: 629.2 (M + H).

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Example 625

N-[3-(1-{6-[(DIPHENYLACETYL)AMINO]HEXYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE: Prepared by Procedure Q1 (THF) and Scheme AT using N-{3-[1-(6-aminohexyl)-4-piperidinyl]phenyl}-2-methylpropanamide and diphenylacetyl chloride: ESMS m/e: 540.3 (M + H)⁺.

Example 626

5-(3,5-DICHLOROPHENOXY)-N-(6-{4-[3-

20 (ISOBUTYRYLAMINO) PHENYL] -1-PIPERIDINYL HEXYL) -2FURAMIDE:

Prepared by Procedure Q1 (THF) and Scheme AT using $N-\{3-[1-(6-aminohexyl)-4-piperidinyl]phenyl\}-2-methylpropanamide and <math>5-(3,5-dichlorophenoxy)-2-furoyl chloride: ESMS <math>m/e: 600.2 \ (M + H)^+$.

Example 627

N-(6-{4-[3-(ISOBUTYRYLAMINO)PHENYL]-1PIPERIDINYL}HEXYL)-2-PHENOXYNICOTINAMIDE: Prepared by

Procedure Q1 (THF) and Scheme AT using N-{3-[1-(6-aminohexyl)-4-piperidinyl]phenyl}-2-methylpropanamide
and 2-phenoxynicotinoyl chloride: ESMS m/e: 543.3 (M + H)⁺.

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 $N-(6-{4-[3-(ISOBUTYRYLAMINO)PHENYL}]-1-$

PIPERIDINYL HEXYL) -2-NAPHTHAMIDE: Prepared by Procedure Q1 (THF) and Scheme AT using $N-\{3-[1-(6-aminohexyl)-4-piperidinyl]$ phenyl $\}-2$ -methylpropanamide and 2-naphthoyl chloride: ESMS m/e: 500.3 (M + H) $^+$.

Example 629

1-BENZYL-3-TERT-BUTYL-N-(6-{4-[3-(ISOBUTYRYLAMINO) PHENYL]-1-PIPERIDINYL}HEXYL)-1H-PYRAZOLE-5-CARBOXAMIDE: Prepared by Procedure Q1 (THF) and Scheme AT using N-{3-[1-(6-aminohexyl)-4piperidinyl]phenyl}-2-methylpropanamide and 1-benzyl-3tert-butyl-1H-pyrazole-5-carbonyl chloride: ESMS m/e: 586.3 (M + H)*.

Example 630

 $3-CHLORO-N-(6-{4-[3-(ISOBUTYRYLAMINO)PHENYL}-1-$

PIPERIDINYL HEXYL) -4- (ISOPROPYLSULFONYL) -2
THIOPHENECARBOXAMIDE: Prepared by Procedure Q1 (THF) and Scheme AT using N-{3-[1-(6-aminohexyl)-4-piperidinyl]phenyl}-2-methylpropanamide and 3-chloro-4-(isopropylsulfonyl)-2-thiophenecarbonyl chloride: ESMS

m/e: 596.2 (M + H)⁺.

Example 631

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N-[3-(1-{6-[(ANILINOCARBONYL)AMINO]HEXYL}-4PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE: Prepared by
Procedure Q1 (THF) and Scheme AT using N-{3-[1-(6-aminohexyl)-4-piperidinyl]phenyl}-2-methylpropanamide
and phenyl isocyanate: ESMS m/e: 465.2 (M + H)*.

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 $N-\{3-[1-(6-\{[(2,4-DiChLoroaniLino)CarbonyL]amino\}HEXYL)-4-PiPERIDINYL]PHENYL\}-2-METHYLPROPANAMIDE: Prepared by Procedure Q1 (THF) and Scheme AT using <math>N-\{3-[1-(6-aminohexyl)-4-piperidinyl]phenyl\}-2-methylpropanamide and 2,4-dichlorophenyl isocyanate: ESMS <math>m/e$: 533.2 (M + H) $^+$.

Example 633

N-(6-{4-[3-(ISOBUTYRYLAMINO) PHENYL]-1PIPERIDINYL}HEXYL)-1-PHENYL-5-PROPYL-1H-PYRAZOLE-4CARBOXAMIDE: Prepared by Procedure Q1 (THF) and Scheme
AT using N-{3-[1-(6-aminohexyl)-4-piperidinyl] phenyl}-2methylpropanamide and 1-phenyl-5-propyl-1H-pyrazole-4carbonyl chloride: ESMS m/e: 558.3 (M + H).

Example 634

2-METHYL-N-{3-[1-(6-{[(1-

NAPHTHYLAMINO) CARBONYL] AMINO HEXYL) -4-

- PIPERIDINYL] PHENYL PROPANAMIDE: Prepared by Procedure Q1 (THF) and Scheme AT using $N-\{3-[1-(6-\text{aminohexyl})-4-\text{piperidinyl}]$ phenyl $\}-2$ -methyl propanamide and 1-naphthyl isocyanate: ESMS m/e: 515.3 (M + H) $^+$.
- 25 Example 635

 N-{3-[1-(6-{[([1,1'-BIPHENYL]-4-YLAMINO)CARBONYL]AMINO}HEXYL)-4-PIPERIDINYL]PHENYL}-2
 METHYLPROPANAMIDE: Prepared by Procedure Q1 (THF) and Scheme AT using N-{3-[1-(6-aminohexyl)-4-piperidinyl]phenyl}-2-methylpropanamide and 4-biphenyl isocyanate: ESMS m/e: 541.3 (M + H)⁺.

Example 636

 $2-METHYL-N-{3-[1-(6-{[(2-$

NAPHTHYLAMINO) CARBONYL] AMINO HEXYL) - 4 -

PIPERIDINYL] PHENYL PROPANAMIDE: Prepared by Procedure Q1 (THF) and Scheme AT using $N-\{3-[1-(6-aminohexy1)-4-piperidinyl] phenyl \}-2-methyl propanamide and 2-naphthyl isocyanate: ESMS <math>m/e$: 515.3 (M + H)⁺.

Example 637

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 $N - \{3 - [1 - (3 - \{[(3, 4 -$

DIMETHOXYPHENYL) SULFONYL] AMINO PROPYL) -4PIPERIDINYL] PHENYL } -2-METHYLPROPANAMIDE: Prepared by
Procedure Q1 (THF) and Scheme AT using N-{3-[1-(3-aminopropyl) -4-piperidinyl] phenyl } -2-methylpropanamide
and 3,4-dimethoxybenzenesulfonyl chloride: ESMS m/e:
504.2 (M + H) +.

Example 638

N-(3-{4-[3-(ISOBUTYRYLAMINO) PHENYL]-1-PIPERIDINYL}PROPYL)-5-METHYL-3-PHENYL-4-

ISOXAZOLECARBOXAMIDE: Prepared by Procedure Q1 (THF) and Scheme AT using N-{3-[1-(3-aminopropyl)-4-piperidinyl]phenyl}-2-methylpropanamide and 5-methyl-3-phenyl-4-isoxazolecarbonyl chloride: ESMS m/e: 489.3 (M+H).

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Example 639

 $N-\{3-[1-(3-\{[(4-FLUOROPHENYL)ACETYL]AMINO\}PROPYL)-4-PIPERIDINYL]PHENYL\}-2-METHYLPROPANAMIDE: Prepared by Procedure Q1 (THF) and Scheme AT using <math>N-\{3-[1-(3-aminopropyl)-4-piperidinyl]phenyl\}-2-methylpropanamide and (4-fluorophenyl)acetyl chloride: ESMS <math>m/e$: 440.3 (M+H).

N-{3-[1-(3-{[(4-CHLORO-3-

NITROPHENYL) SULFONYL] AMINO PROPYL) - 4 -

PIPERIDINYL] PHENYL}-2-METHYLPROPANAMIDE: Prepared by Procedure Q1 (THF) and Scheme AT using $N-\{3-[1-(3-minopropyl)-4-piperidinyl] phenyl\}-2-methylpropanamide and 4-chloro-3-nitrobenzenesulfonyl chloride: ESMS <math>m/e$: 523.1 (M + H)⁺.

10 Example 641

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2-(4-CHLOROPHENOXY)-N-(3-{4-[3-(ISOBUTYRYLAMINO) PHENYL]1-PIPERIDINYL}PROPYL) NICOTINAMIDE: Prepared by Procedure
Q1 (THF) and Scheme AT using N-{3-[1-(3-aminopropyl)-4-piperidinyl] phenyl}-2-methylpropanamide and 2-(4-chlorophenoxy) nicotinoyl chloride: ESMS m/e: 535.2 (M + H)⁺.

Example 642

5-(3,5-DICHLOROPHENOXY)-N-(3-{4-[3-

20 (ISOBUTYRYLAMINO) PHENYL] -1-PIPERIDINYL}PROPYL) -2FURAMIDE:

Prepared by Procedure Q1 (THF) and Scheme AT using $N-\{3-[1-(3-aminopropy1)-4-piperidiny1]pheny1\}-2-methylpropanamide and <math>5-(3,5-dichlorophenoxy)-2-furoy1$ chloride: ESMS m/e: 558.2 (M + H) $^+$.

Example 643

N-{3-[1-(3-{[(2-FLUOROPHENYL)SULFONYL]AMINO}PROPYL)-4-PIPERIDINYL]PHENYL}-2-METHYLPROPANAMIDE: Prepared by Procedure Q1 (THF) and Scheme AT using N-{3-[1-(3-aminopropyl)-4-piperidinyl]phenyl}-2-methylpropanamide and 2-fluorobenzenesulfonyl chloride: ESMS m/e: 462.2 (M+H).

 $N-{3-[1-(3-{[(3,5-DIMETHYL-4-$

ISOXAZOLYL) SULFONYL] AMINO PROPYL) - 4-PIPERIDINYL] PHENYL} - 2-METHYLPROPANAMIDE: Prepared by Procedure Q1 (THF) and Scheme AT using N-{3-[1-(3-aminopropyl)-4-piperidinyl] phenyl} - 2-methylpropanamide and 3,5-dimethyl-4-isoxazolesulfonyl chloride: ESMS m/e: 463.2 (M + H)⁺.

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Example 644

 $N-\{3-[1-(3-\{[(4-TERT-BUTYLPHENYL)SULFONYL]AMINO\}PROPYL)-4-PIPERIDINYL]PHENYL\}-2-METHYLPROPANAMIDE: Prepared by Procedure Q1 (THF) and Scheme AT using <math>N-\{3-[1-(3-minopropyl)-4-piperidinyl]phenyl\}-2-methylpropanamide and <math>4-tert$ -butylbenzenesulfonyl chloride: ESMS m/e: 500.3 (M + H) $^+$.

Example 646

N-{3-[1-(6-AMINOHEXYL)-4-PIPERIDINYL]PHENYL}-2
METHYLPROPANAMIDE: Prepared by Procedure AE and Scheme Y using N-(3-{1-[6-(1,3-dioxo-1,3-dihydro-2H-isoindol-2-yl)hexyl]-4-piperidinyl}phenyl)-2-methylpropanamide and hydrazine hydrate: ESMS m/e: 346.2 (M + H)⁺.

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Example 647

 $N-{3-[1-(2-{[([1,1'-BIPHENYL]-4-$

YLAMINO) CARBONYL] AMINO SETHYL) - 4-PIPERIDINYL] PHENYL Service - 2
METHYLPROPANAMIDE: Prepared by Procedure Q1 (THF) and Scheme AT using N-{3-[1-(2-aminoethyl)-4-piperidinyl] phenyl} - 2-methylpropanamide and 4-biphenyl isocyanate: ESMS m/e: 485.2 (M + H).

5-(3,5-DICHLOROPHENOXY) -N-(2-{4-[3-

(ISOBUTYRYLAMINO) PHENYL] -1-PIPERIDINYL}ETHYL) -3-

FURAMIDE:

Prepared by Procedure Q1 (THF) and Scheme AT using N-{3-[1-(2-aminoethyl)-4-piperidinyl]phenyl}-2-methylpropanamide and 5-(3,5-dichlorophenoxy)-3-furoyl chloride: ESMS m/e: 544.1 (M + H)⁺.

10 Example 649

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N-[3-(1-{2-[(DIPHENYLACETYL)AMINO]ETHYL}-4
PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE: Prepared by

Procedure Q1 (THF) and Scheme AT using N-{3-[1-(2-aminoethyl)-4-piperidinyl]phenyl}-2-methylpropanamide

and diphenylacetyl chloride: ESMS m/e: 484.2 (M + H)⁺.

Example 650

 $N-(2-\{4-[3-(ISOBUTYRYLAMINO) PHENYL]-1-$

PIPERIDINYL}ETHYL)-2-NAPHTHAMIDE: Prepared by Procedure

Q1 (THF) and Scheme AT using N-{3-[1-(2-aminoethyl)-4-piperidinyl]phenyl}-2-methylpropanamide and 2-naphthoyl chloride: ESMS m/e: 444. 2 (M + H)⁺.

Example 651

3-(2,6-DICHLOROPHENYL)-N-(4-{4-[3-(ISOBUTYRYLAMINO)PHENYL]-1-PIPERIDINYL}BUTYL)-5-METHYL-4-ISOXAZOLECARBOXAMIDE:

Prepared by Procedure Q1 (THF) and Scheme AT using $N-\{3-[1-(4-aminobutyl)-4-piperidinyl]phenyl\}-2-$

methylpropanamide and 3-(2,6-dichlorophenyl)-5-methyl-4-isoxazolecarbonyl chloride: ESMS m/e: 571.2 (M + H)⁺.

3-(2,6-DICHLOROPHENYL)-N- (5-{4-[3-(ISOBUTYRYLAMINO) PHENYL]-1-PIPERIDINYL}PENTYL)-5-METHYL-4-ISOXAZOLECARBOXAMIDE:

Prepared by Procedure Q1 (THF) and Scheme AT using $N-\{3-[1-(5-aminopentyl)-4-piperidinyl]phenyl\}-2-methylpropanamide and <math>3-(2,6-dichlorophenyl)-5-methyl-4-isoxazolecarbonyl chloride. ESMS <math>m/e: 585.2 \ (M+H)^+$.

Example 653

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N-[3-(1-{4-[(DIPHENYLACETYL) AMINO] BUTYL}-4PIPERIDINYL) PHENYL]-2-METHYLPROPANAMIDE: Prepared by
Procedure Q2(THF/DCM, 1:3)) and Scheme AT using N-{3[1-(4-aminobutyl)-4-piperidinyl] phenyl}-2methylpropanamide and diphenylacetyl chloride: ESMS m/e:
512.0 (M + H)⁺.

Example 654

N-[3-(1-{5-[(DIPHENYLACETYL) AMINO] PENTYL}-4PIPERIDINYL) PHENYL]-2-METHYLPROPANAMIDE: Prepared by
20 Procedure Q2(THF/DCM, 1:3)) and Scheme AT using N-{3[1-(5-aminopentyl)-4-piperidinyl] phenyl}-2methylpropanamide and diphenylacetyl chloride: ESMS
m/e: 526.0 (M + H).*.

25 Example 655

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3,5-DICHLORO-N-(4-{4-[3-(ISOBUTYRYLAMINO)PHENYL]-1-PIPERIDINYL}BUTYL)BENZAMIDE: Prepared by Procedure Q2 (THF/DCM, 1:3) and Scheme AT using N-{3-[1-(4-aminobutyl)-4-piperidinyl]phenyl}-2-methylpropanamide and 3,5-dichlorobenzoyl chloride: ESMS m/e: 490.0 (M + H)⁺.

5-(3,5-DICHLOROPHENOXY)-N- (4-{4-[3-(ISOBUTYRYLAMINO) PHENYL]-1-PIPERIDINYL}BUTYL)-2FURAMIDE:

Prepared by Procedure Q2 (THF/DCM, 1:3) and Scheme AT using $N-\{3-[1-(4-a\min nobuty1)-4-piperidiny1]pheny1\}-2-methylpropanamide and <math>5-(3,5-dichlorophenoxy)-2-furoy1$ chloride: ESMS m/e: $572.0 (M + H)^+$.

Example 657

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3-CHLORO-N-(4-{4-[3-(ISOBUTYRYLAMINO) PHENYL]-1PIPERIDINYL}BUTYL)BENZAMIDE: Prepared by Procedure Q2
(THF/DCM, 1:3) and Scheme AT using N-{3-[1-(4-aminobutyl)-4-piperidinyl] phenyl}-2-methylpropanamide and 3-chlorobenzoyl chloride: ESMS m/e: 456.0 (M + H)⁺.

Example 658

3,4-DIFLUORO-N-(4-{4-[3-(ISOBUTYRYLAMINO)PHENYL]-1PIPERIDINYL}BUTYL)BENZAMIDE: Prepared by Procedure Q2
(THF/DCM, 1:3) and Scheme AT using N-{3-[1-(4-aminobutyl)-4-piperidinyl]phenyl}-2-methylpropanamide and 3,4-difluorobenzoyl chloride: ESMS m/e: 458.0 (M + H).

Example 659

N-{3-[1-(4-{[(3,5-DICHLOROANILINO)CARBONYL]AMINO}BUTYL)4-PIPERIDINYL]PHENYL}-2-METHYLPROPANAMIDE: Prepared by
Procedure Q2 (THF/DCM, 1:3) and Scheme AT using N-(3{1-[4-(formylamino)butyl]-4-piperidinyl}phenyl)-2methylpropanamide and 3,5-dichlorophenyl isocyanate:

ESMS m/e: 505.0 (M + H)⁺.

N-{3-[1-(4-{[([1,1'-YLAMINO)BUTYL)-4-PIPERIDINYL]PHENYL}-4-YLAMINO)CARBONYL]AMINO}BUTYL)-4-PIPERIDINYL]PHENYL}-2-METHYLPROPANAMIDE: Prepared by Procedure Q2 (THF/DCM, 1:3) and Scheme AT using N-{3-[1-(4-aminobutyl)-4-piperidinyl]phenyl}-2-methylpropanamide and 4-biphenyl isocyanate: ESMS m/e: 513.0 (M + H)⁺.

Example 661

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 $2-METHYL-N-(3-{1-[5-(4-NITROPHENYL)-5-OXOPENTYL]-4-}$

piperidinyl) propanamide: Prepared by Procedure K and Scheme Bl (K₂CO₃) using 5-chloro-1-(4-nitrophenyl)-1-pentanone and 2-methyl-N-[3-(4-piperidinyl) phenyl] propanamide: ESMS m/e: 452.2 (M + H).

15 Example 662

N-(3-{1-[5-(4-FLUOROPHENYL)-5-OXOPENTYL]-4PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by
Procedure K and Scheme B1 (K₂CO₃) using 5-chloro-1-(4fluorophenyl)-1-pentanone and 2-methyl-N-[3-(4piperidinyl)phenyl]propanamide: ESMS m/e: 425.2 (M + H)⁺.

Example 663

2-METHYL-N-[3-(1-{5-OXO-5-[2-(TRIFLUOROMETHYL) PHENYL] PENTYL}-4-

PIPERIDINYL) PHENYL] PROPANAMIDE: Prepared by Procedure K and Scheme Bl (K₂CO₃) using 5-chloro-1-[2-(trifluoromethyl) phenyl] -1-pentanone and 2-methyl-N-[3-(4-piperidinyl) phenyl] propanamide: ESMS m/e: 475.2 (M + H).

Example 664

N-(3-{1-[5-(3-BROMOPHENYL)-5-OXOPENTYL]-4PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by

Procedure K and Scheme B1 (K_2CO_3) using 1-(3-bromophenyl)-5-chloro-1-pentanone and 2-methyl-N-[3-(4-piperidinyl)phenyl]propanamide: ESMS m/e: 485.1 (M + H)⁺.

5 Example 665

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2-METHYL-N-(3-{1-[5-(3-NITROPHENYL)-5-OXOPENTYL]-4-PIPERIDINYL}PHENYL) PROPANAMIDE: Prepared by Procedure K and Scheme B1 (K_2CO_3) using 5-chloro-1-(3-nitrophenyl)-1-pentanone and 2-methyl-N-[3-(4-piperidinyl)phenyl]propanamide: ESMS m/e: 452.2 (M + H)⁺.

Example 666

N-(3-{1-[5-(3-CHLOROPHENYL)-5-OXOPENTYL]-4PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by
Procedure K and Scheme B1 (K₂CO₃) using 1-(3chlorophenyl)-5-chloro-1-pentanone and 2-methyl-N-[3-(4piperidinyl)phenyl]propanamide: ESMS m/e: 441.1 (M + H)⁺.

Example 667

N-(3-{1-[5-(4-BROMOPHENYL)-5-OXOPENTYL]-4PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by
Procedure K and Scheme B1 (K₂CO₃) using 1-(4bromophenyl)-5-chloro-1-pentanone and 2-methyl-N-[3-(4piperidinyl)phenyl]propanamide: ESMS m/e: 485.1 (M + H)⁺.

Example 668

N-(3-{1-[5-(2-IODOPHENYL)-5-OXOPENTYL]-4-PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by Procedure K and Scheme B1 (K_2CO_3) using 1-(2-iodophenyl)-5-chloro-1-pentanone and 2-methyl-N-[3-(4-piperidinyl)phenyl]propanamide: ESMS m/e: 533.0 (M + H) $^+$.

N-(3-{1-[5-(3-

FLUOROPHENYL) -5-

OXOPENTYL] -4-PIPERIDINYL}PHENYL) -2-METHYLPROPANAMIDE:

Prepared by Procedure K and Scheme B1 (K_2CO_3) using 1-(3-fluorophenyl)-5-chloro-1-pentanone and 2-methyl-<math>N-[3-(4-piperidinyl)phenyl] propanamide: ESMS m/e: 425.2 (M + H)⁺.

Example 670

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2-METHYL-N-[3-(1-{5-0X0-5-[3-

(TRIFLUOROMETHYL) PHENYL] PENTYL}-4
PIPERIDINYL) PHENYL] PROPANAMIDE: Prepared by Procedure K

and Scheme B1 (K₂CO₃) using 1-[3
(trifluoromethyl) phenyl] -5-chloro-1-pentanone and 2
methyl-N-[3-(4-piperidinyl) phenyl] propanamide: ESMS m/e:

475.2 (M + H)⁺.

Example 671

N-(3-{1-[5-(2-FLUOROPHENYL)-5-OXOPENTYL]-4PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by
Procedure K and Scheme B1 (K₂CO₃) using 1-(2fluorophenyl)-5-chloro-1-pentanone and 2-methyl-N-[3-(4piperidinyl)phenyl]propanamide: ESMS m/e: 425.2 (M + H)⁺.

Example 672

N-(3-{1-[5-(3-IODOPHENYL)-5-OXOPENTYL]-4PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by
Procedure K and Scheme B1 (K₂CO₃) using 1-(3iodophenyl)-5-chloro-1-pentanone and 2-methyl-N-[3-(4piperidinyl)phenyl]propanamide: ESMS m/e: 533.0 (M + H)*.

Example 673

N-(3-{1-[5-(2-CHLOROPHENYL)-5-OXOPENTYL]-4PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by

using 1-(2-Procedure K and Scheme B1 (K_2CO_3) chlorophenyl)-5-chloro-1-pentanone and 2-methyl-N-[3-(4piperidinyl)phenyl]propanamide: ESMS m/e: 441.1 (M + H).

Example 674 5

2-METHYL-N-[3-(1-{5-0X0-5-[4-

(TRIFLUOROMETHYL) PHENYL] PENTYL}-4-

PIPERIDINYL) PHENYL] PROPANAMIDE: Prepared by Procedure K (K_2CO_3) using and Scheme Bl and 2 -(trifluoromethyl)phenyl]-5-chloro-1-pentanone methyl-N-[3-(4-piperidinyl)phenyl]propanamide: ESMS m/e: $475.2 (M + H)^{+}$.

Example 675

 $N-(3-\{1-[5-(4-CHLOROPHENYL)-5-OXOPENTYL]-4-$ 15 PIPERIDINYL PHENYL) - 2 - METHYLPROPANAMIDE: Prepared Scheme Procedure K and B1 (K_2CO_3) using : 1-(4chlorophenyl)-5-chloro-1-pentanone and 2-methyl-N-[3-(4piperidinyl)phenyl]propanamide: ESMS m/e: 441.1 (M + H)*.

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Example 676

 $N-(3-\{1-[5-(4-IODOPHENYL)-5-OXOPENTYL]-4-$

PIPERIDINYL PHENYL) - 2-METHYLPROPANAMIDE: Prepared by Procedure K and Scheme Bl (K_2CO_3) using iodophenyl)-5-chloro-1-pentanone and. 2-methyl-N-[3-(4piperidinyl)phenyl]propanamide: ESMS m/e: 533 (M + H)*.

Example 677

 $N-(3-\{1-[5-(2-BROMOPHENYL)-5-OXOPENTYL]-4-$

PIPERIDINYL}PHENYL) - 2 - METHYLPROPANAMIDE: Prepared by 30 Procedure K and Scheme B1 (K_2CO_3) using bromophenyl)-5-chloro-1-pentanone and 2-methyl-N-[3-(4piperidinyl)phenyl]propanamide: ESMS m/e: 485.1 (M + H)*.

2-(4-CHLOROPHENOXY)-N-(4-{4-[3-(ISOBUTYRYLAMINO)PHENYL]-1-PIPERIDINYL}BUTYL)NICOTINAMIDE: Prepared by Procedure Q2 (THF/DCM, 1:3) and Scheme AT using N-{3-[1-(4-aminobutyl)-4-piperidinyl]phenyl}-2-methylpropanamide and 2-(4-chlorophenoxy)nicotinoyl chloride: ESMS m/e: 549.0 (M + H) $^+$.

10 Example 679

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N-(4-{4-[3-(ISOBUTYRYLAMINO)PHENYL]-1PIPERIDINYL}BUTYL)-3,4-DIMETHOXYBENZAMIDE: Prepared by
Procedure Q2 (THF/DCM, 1:3) and Scheme AT using N-{3[1-(4-aminobutyl)-4-piperidinyl]phenyl}-2methylpropanamide and 3,4-dimethoxybenzoyl chloride:
ESMS m/e: 482.0 (M + H)⁺.

Example 680

3-(2-CHLOROPHENYL)-N-(4-{4-[3-(ISOBUTYRYLAMINO)PHENYL]
1-PIPERIDINYL}BUTYL)-5-METHYL-4-ISOXAZOLECARBOXAMIDE:

Prepared by Procedure Q2 (THF/DCM, 1:3) and Scheme AT using N-{3-[1-(4-aminobutyl)-4-piperidinyl]phenyl}-2-methylpropanamide and 3-(2-chlorophenyl)-5-methyl-4-isoxazolecarbonyl chloride: ESMS m/e: 537.0 (M + H)*.

Example 681

3-(2-CHLOROPHENYL)-N-(5-{4-[3-(ISOBUTYRYLAMINO)PHENYL]1-PIPERIDINYL}PENTYL)-5-METHYL-4-ISOXAZOLECARBOXAMIDE:
Prepared by Procedure Q2 (THF/DCM, 1:3) and Scheme AT using N-{3-[1-(5-aminopentyl)-4-piperidinyl]phenyl}-2-methylpropanamide and 3-(2-chlorophenyl)-5-methyl-4-isoxazolecarbonyl chloride: ESMS m/e: 551.0 (M + H)⁺.

Example 682

2-METHYL-N-{3-[1-(3-{1-METHYL-2-[4(TRIFLUOROMETHYL) PHENYL]-1H-INDOL-3-YL}PROPYL)-4PIPERIDINYL]PHENYL}PROPANAMIDE: Prepared by Procedure E

and Scheme M using 2-methyl-N-[3-(1-{5-oxo-5-[4(trifluoromethyl) phenyl]pentyl}-4piperidinyl)phenyl]pentyl}-4piperidinyl)phenyl]propanamide and 1-methyl-1-

phenylhydrazine: ESMS m/e: 562.2 (M + H)⁺.

Example 683 10 $2-METHYL-N-{3-[1-(3-{1-METHYL-2-[4-$ (TRIFLUOROMETHYL) PHENYL] -1H-INDOL-3-YL}PROPYL) -4-PIPERIDINYL] PHENYL PROPANAMIDE: Prepared by Procedure E $2-\text{methyl}-N-[3-(1-\{5-\infty-5-[4-1])]$ using Scheme and (trifluoromethyl)phenyl]pentyl}-4-15 piperidinyl)phenyl]propanamide and (trifluoromethoxy) phenylhydrazine hydrochloride: . $m/e: 632.2 (M + H)^{+}$.

20 Example 684

2-METHYL-N-{3-[1-(3-{2-[4-(TRIFLUOROMETHYL)PHENYL]-1HINDOL-3-YL}PROPYL)-4-PIPERIDINYL]PHENYL}PROPANAMIDE:

Prepared by Procedure E and Scheme M using 2-methyl-N[3-(1-{5-oxo-5-[4-(trifluoromethyl)phenyl]pentyl}-4
piperidinyl)phenyl]propanamide and phenylhydrazine: ESMS

m/e: 548.2 (M + H)⁺.

Example 685

2-METHYL-N-{3-[1-(3-{1-PHENYL-2-[4
(TRIFLUOROMETHYL) PHENYL]-1H-INDOL-3-YL}PROPYL)-4
PIPERIDINYL]PHENYL}PROPANAMIDE: Prepared by Procedure E

and Scheme M using 2-methyl-N-[3-(1-{5-oxo-5-[4(trifluoromethyl)phenyl]pentyl}-4-

piperidinyl)phenyl]propanamide and 1,1-diphenylhydrazine hydrochloride: ESMS m/e: 624.2 (M + H)⁺.

Example 686

- 2-METHYL-N-{3-[1-(3-{2-[4-(TRIFLUOROMETHYL)PHENYL]-1H-BENZO[G]INDOL-3-YL}PROPYL)-4-PIPERIDINYL]PHENYL}PROPANAMIDE: Prepared by Procedure E and Scheme M using 2-methyl-N-[3-(1-{5-oxo-5-[4-(trifluoromethyl)phenyl]pentyl}-4-
- piperidinyl)phenyl]propanamide and 1-naphthylhydrazine hydrochloride: ESMS m/e: 598.2 (M + H) $^{+}$.

Example 687

2-METHYL-N-{3-[1-(3-{7-METHYL-2-[4-

(TRIFLUOROMETHYL) PHENYL] -1H-INDOL-3-YL} PROPYL) -4
PIPERIDINYL] PHENYL} PROPANAMIDE: Prepared by Procedure E

and Scheme M using 2-methyl-N-[3-(1-{5-oxo-5-[4-(trifluoromethyl) phenyl] pentyl}-4
piperidinyl) phenyl] propanamide and 1-(2
methylphenyl) hydrazine hydrochloride: ESMS m/e: 562.2(M

+ H).

Example 688

 $2-METHYL-N-{3-[1-(3-{5-METHYL-2-[4-})]}$

25 (TRIFLUOROMETHYL) PHENYL] -1H-INDOL-3-YL} PROPYL) -4PIPERIDINYL] PHENYL} PROPANAMIDE: Prepared by Procedure E
and Scheme M using 2-methyl-N-[3-(1-{5-oxo-5-[4-(trifluoromethyl) phenyl] pentyl}-4piperidinyl) phenyl] pentyl} -4piperidinyl) phenyl] propanamide and 4methylphenylhydrazine hydrochloride: ESMS m/e: 562.2(M +
H).

N-{3-[1-(3-{5-METHOXY-2- [4(TRIFLUOROMETHYL) PHENYL]-1H-INDOL-3-YL}PROPYL)-4
PIPERIDINYL]PHENYL}-2-METHYLPROPANAMIDE: Prepared by

Procedure E and Scheme M using 2-methyl-N-[3-(1-{5-oxo-5-[4-(trifluoromethyl) phenyl]pentyl}-4
piperidinyl)phenyl]propanamide and 4
methoxyphenylhydrazine hydrochloride: ESMS m/e: 578.2 (M

10 Example 690

+ H) +.

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N-[3-(1-{3-[2-(3-FLUOROPHENYL)-7-METHYL-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using N-(3-{1-[5-(3-fluorophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2-methylpropanamide and 1-(2-methylphenyl)hydrazine hydrochloride: ESMS m/e: 512.2 (M + H)⁺.

Example 691

N-[3-(1-{3-[2-(4-CHLOROPHENYL)-1-METHYL-1H-INDOL-3YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:
Prepared by Procedure E and Scheme M using N-(3-{1-[5-(4-chlorophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2methylpropanamide and 1-methyl-1-phenylhydrazine: ESMS
m/e: 528.2 (M + H)⁺.

Example 692

N-[3-(1-{3-[2-(4-FLUOROPHENYL)-5-METHOXY-1H-INDOL-3YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:
Prepared by Procedure E and Scheme M using N-(3-{1-[5-(4-fluorophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2methylpropanamide and 4-methoxyphenylhydrazine
hydrochloride: ESMS m/e: 528.2(M + H)⁺.

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 $N-[3-(1-\{3-[2-(2-FLUOROPHENYL)-1H-INDOL-3-YL] PROPYL\}-4-$ PIPERIDINYL) PHENYL] -2-METHYLPROPANAMIDE: Prepared by Procedure E and Scheme M using $N-(3-\{1-[5-(2-fluorophenyl)-5-oxopentyl]-4-piperidinyl\} phenyl)-2-methylpropanamide and phenylhydrazine: ESMS <math>m/e$: 498.2 $(M+H)^+$.

Example 694

N-[3-(1-{3-[2-(3-FLUOROPHENYL)-5-(TRIFLUOROMETHOXY)-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2
METHYLPROPANAMIDE: Prepared by Procedure E and Scheme M using N-(3-{1-[5-(3-fluorophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2-methylpropanamide and 4
(trifluoromethoxy)phenylhydrazine hydrochloride: ESMS m/e: 582.2 (M + H)⁺.

Example 695

N-[3-(1-{3-[2-(2-FLUOROPHENYL)-5-(TRIFLUOROMETHOXY)-1HINDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2METHYLPROPANAMIDE: Prepared by Procedure E and Scheme M
using N-(3-{1-[5-(2-fluorophenyl)-5-oxopentyl]-4piperidinyl}phenyl)-2-methylpropanamide and 4(trifluoromethoxy)phenylhydrazine hydrochloride: ESMS

m/e: 582.2 (M + H)⁺.

Example 696

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N-[3-(1-{3-[2-(4-FLUOROPHENYL)-1-PHENYL-1H-INDOL-3YL]PROPYL}-4-PIPERIDINYL)PHENYL}-2-METHYLPROPANAMIDE:
Prepared by Procedure E and Scheme M using N-(3-{1-[5-(4-fluorophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2-

methylpropanamide and 1,1-diphenylhydrazine hydrochloride: ESMS m/e: 548.2 (M + H) $^+$.

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N-[3-(1-{3-[2-(2-FLUOROPHENYL)-1H-BENZO[G]INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using N-(3-{1-[5-(2-fluorophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2-methylpropanamide and 1-naphthylhydrazine hydrochloride:

ESMS m/e: 547.7 (M + H)⁺.

Example 698

N-[3-(1-{3-[2-(2-FLUOROPHENYL)-5-METHYL-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using N-(3-{1-[5-(2-fluorophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2-methylpropanamide and 4-methylphenylhydrazine hydrochloride: ESMS m/e: 512.2(M + H)*.

 $N-[3-(1-{3-[2-(3-FLUOROPHENYL)-1H-BENZO[G]INDOL-3-$

Example 699

YL] PROPYL}-4-PIPERIDINYL) PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using N-(3-{1-[5-(3-fluorophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2
methylpropanamide and 1-naphthylhydrazine hydrochloride:

ESMS m/e: 548.2 (M + H)*.

Example 700

N-[3-(1-{3-[2-(4-FLUOROPHENYL)-1-METHYL-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using N-(3-{1-[5-(4-fluorophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2
methylpropanamide and 1-methyl-1-phenylhydrazine: ESMS

m/e: 512.2 (M + H)⁺.

N-[3-(1-{3-[2-(3-FLUOROPHENYL)-5-METHOXY-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using $N-(3-\{1-[5-(3-fluorophenyl)-5-oxopentyl]-4-piperidinyl\}phenyl)-2-methylpropanamide and 4-methoxyphenylhydrazine hydrochloride: ESMS <math>m/e$: 528.2 $(M+H)^+$.

Example 702

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N-[3-(1-{3-[2-(3-FLUOROPHENYL)-1-PHENYL-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using N-(3-{1-[5-(3-fluorophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2-methylpropanamide and 1,1-diphenylhydrazine hydrochloride: ESMS m/e: 574.2 (M + H)⁺.

Example 703

N-[3-(1- $\{3-[2-(4-CHLOROPHENYL)-5-(TRIFLUOROMETHOXY)-1H-INDOL-3-YL]$ PROPYL $\}-4-$

Prepared PIPERIDINYL) PHENYL] - 2 - METHYLPROPANAMIDE: by 20 using $N-(3-\{1-[5-(4-$ Procedure and Scheme chlorophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2methylpropanamide and 4 hydrochloride: ESMS (trifluoromethoxy) phenylhydrazine 25 $m/e: 598.2 (M + H)^{+}$

Example 704

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N-[3-(1-{3-[2-(3-FLUOROPHENYL)-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE: Prepared by Procedure E and Scheme M using N-(3-{1-[5-(3-fluorophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2-methylpropanamide and phenylhydrazine: ESMS m/e: 498.2 (M + H)⁺.

N-[3-(1-{3-[2-(3-FLUOROPHENYL)-1-METHYL-1H-INDOL-3-YL] PROPYL}-4-PIPERIDINYL) PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using $N-(3-\{1-[5-(3-fluorophenyl)-5-oxopentyl]-4-piperidinyl\}phenyl)-2-methylpropanamide and 1-methyl-1-phenylhydrazine: ESMS <math>m/e$: 512.2 (M + H) $^+$.

10 Example 706

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N-[3-(1-{3-[2-(3-FLUOROPHENYL)-5-METHYL-1H-INDOL-3YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:
Prepared by Procedure E and Scheme M using N-(3-{1-[5-(3-fluorophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2methylpropanamide and 4-methylphenylhydrazine
hydrochloride: ESMS m/e: 512.2 (M + H)*.

Example 707

N-[3-(1-{3-[2-(4-CHLOROPHENYL)-1H-BENZO[G]INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using N-(3-{1-[5-(4-chlorophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2-methylpropanamide and 1-naphthylhydrazine hydrochloride:

ESMS m/e: 564.2 (M + H)*.

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Example 708

N-[3-(1-{3-[2-(4-CHLOROPHENYL)-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE: Prepared by Procedure E and Scheme M using N-(3-{1-[5-(4-chlorophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2-methylpropanamide and 1-phenylhydrazine hydrochloride: ESMS m/e: 514.2 (M + H)⁺.

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N-[3-(1-{3-[2-(2-FLUOROPHENYL)-1-METHYL-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using N-(3-{1-[5-(2-fluorophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2-methylpropanamide and 1-methyl-1-phenylhydrazine: ESMS m/e: 512.2 (M + H)⁺.

Example 710

N-[3-(1-{3-[2-(2-FLUOROPHENYL)-7-METHYL-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using N-(3-{1-[5-(2-fluorophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2-methylpropanamide and 1-(2-methylphenyl)hydrazine hydrochloride: ESMS m/e: 512.2 (M + H).

Example 711

N-[3-(1-{3-[2-(2-FLUOROPHENYL)-1-PHENYL-1H-INDOL-3-YL] PROPYL}-4-PIPERIDINYL) PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using $N-(3-\{1-[5-(2-fluorophenyl)-5-oxopentyl]-4-piperidinyl\}phenyl)-2-methylpropanamide and 1,1-diphenylhydrazine hydrochloride: ESMS <math>m/e$: 574.2 (M + H) $^+$.

25 **Example 712**

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N-[3-(1-{3-[2-(2-FLUOROPHENYL)-5-METHOXY-1H-INDOL-3YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:
Prepared by Procedure E and Scheme M using N-(3-{1-[5-(2-fluorophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2methylpropanamide and 4-methoxyphenylhydrazine
hydrochloride: ESMS m/e: 528.2 (M + H)*.

 $N-[3-(1-{3-[2-(4-$

CHLOROPHENYL) - 5 - METHOXY -

1H-INDOL-3-YL] PROPYL }-4-PIPERIDINYL) PHENYL]-2-

METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using $N-(3-\{1-[5-(4-\text{chlorophenyl})-5-\text{oxopentyl}]-4-\text{piperidinyl}\}$ phenyl)-2-methylpropanamide and 4-methoxyphenylhydrazine hydrochloride: ESMS m/e: 544.2 (M + H)⁺.

Example 714

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N-[3-(1-{3-[2-(4-FLUOROPHENYL)-1H-BENZO[G]INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using N-(3-{1-[5-(4-fluorophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2-methylpropanamide and 1-naphthylhydrazine hydrochloride:

ESMS m/e: 548.2 (M + H)⁺.

Example 715

 $N-[3-(1-{3-[2-(4-FLUOROPHENYL)-5-(TRIFLUOROMETHOXY)-1}H-INDOL-3-YL]$ PROPYL-4-PIPERIDINYL) PHENYL-2-

20 **METHYLPROPANAMIDE:**

Prepared by Procedure E and Scheme M using $N-(3-\{1-[5-(4-fluorophenyl)-5-oxopentyl]-4-piperidinyl\}phenyl)-2-methylpropanamide and 4-(trifluoromethoxy)phenylhydrazine hydrochloride: ESMS <math>m/e$: 582.9 (M + H) $^+$.

Example 716

N-[3-(1-{3-[2-(4-FLUOROPHENYL)-7-METHYL-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using N-(3-{1-[5-(4-fluorophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2-methylpropanamide and 1-(2-methylphenyl)hydrazinehydrochloride: ESMS m/e: 512.2 (M + H)⁺.

N-[3-(1-{3-[2-(4-FLUOROPHENYL)-1H-INDOL-3-YL] PROPYL}-4-PIPERIDINYL) PHENYL]-2-METHYLPROPANAMIDE: Prepared by Procedure E and Scheme M using N-(3-{1-[5-(4-fluorophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2-methylpropanamide and phenylhydrazine: ESMS m/e: 498.2 (M + H)*.

10 Example 718

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N-[3-(1-{3-[2-(4-FLUOROPHENYL)-5-METHYL-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using N-(3-{1-[5-(4-fluorophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2-methylpropanamide and 4-methylphenylhydrazine hydrochloride: ESMS m/e: 512.2 (M + H)⁺.

Example 719

N-[3-(1-{3-[2-(4-CHLOROPHENYL)-7-METHYL-1H-INDOL-3YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using N-(3-{1-[5-(4-chlorophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2methylpropanamide and 1-(2-methylphenyl)hydrazine
hydrochloride: ESMS m/e: 528.2 (M + H)⁺.

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Example 720

N-[3-(1-{3-[2-(4-CHLOROPHENYL)-5-METHYL-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using N-(3-{1-[5-(4-chlorophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2-methylpropanamide and 4-methylphenylhydrazine hydrochloride: ESMS m/e: 528.2 (M + H)⁺.

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N-[3-(1-{3-[2-(4-CHLOROPHENYL)-1-PHENYL-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using N-(3-{1-[5-(4-chlorophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2-methylpropanamide and 1,1-diphenylhydrazine hydrochloride: ESMS m/e: 590.2 (M + H)⁺.

Example 722

N-[3-(1-{3-[2-(3-CHLOROPHENYL)-7-METHYL-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using N-(3-{1-[5-(3-chlorophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2-methylpropanamide and 1-(2-methylphenyl)hydrazine hydrochloride: ESMS m/e: 528.1 (M + H)⁺.

Example 723

 $N-[3-(1-{3-[2-(3-CHLOROPHENYL)-5-(TRIFLUOROMETHOXY)-1}H-INDOL-3-YL]$ PROPYL-4-PIPERIDINYL) PHENYL-2-

20 METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using $N-(3-\{1-\{5-(3-\text{chlorophenyl})-5-\text{oxopentyl}\}-4-\text{piperidinyl}\}$ phenyl)-2-methylpropanamide and 4-(trifluoromethoxy)phenylhydrazine hydrochloride: ESMS $m/e: 598.2 \ (M + H)^+$.

Example 724

N-[3-(1-{3-[2-(3-CHLOROPHENYL)-1-METHYL-1H-INDOL-3YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:
Prepared by Procedure E and Scheme M using N-(3-{1-[5-(3-chlorophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2methylpropanamide and 1-methyl-1-phenylhydrazine: ESMS
m/e: 528.2 (M + H)*.

N-[3-(1-{3-[2-(3-CHLOROPHENYL)-1-PHENYL-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using $N-(3-\{1-[5-(3-chlorophenyl)-5-oxopentyl]-4-piperidinyl\}phenyl)-2-methylpropanamide and 1,1-diphenylhydrazine hydrochloride: ESMS <math>m/e$: 590.3 (M + H)⁺.

10 Example 726

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N-[3-(1-{3-[2-(3-CHLOROPHENYL)-5-METHOXY-1H-INDOL-3YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:
Prepared by Procedure E and Scheme M using N-(3-{1-[5-(3-chlorophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2methylpropanamide and 4-methoxyphenylhydrazine
hydrochloride: ESMS m/e: 544.3 (M + H)⁺.

Example 727

N-[3-(1-{3-[2-(3-CHLOROPHENYL)-5-METHYL-1H-INDOL-320 YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:
Prepared by Procedure E and Scheme M using N-(3-{1-[5-(3-chlorophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2methylpropanamide and 4-methylphenylhydrazine
hydrochloride: ESMS m/e: 528.2 (M + H)*.

Example 728

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N-[3-(1-{3-[2-(3-CHLOROPHENYL)-1H-BENZO[G]INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE: Prepared by Procedure E and Scheme M using N-(3-{1-[5-(3-chlorophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2-methylpropanamide and 1-naphthylhydrazine hydrochloride: ESMS m/e: 564.2 (M + H)⁺.

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N-[3-(1-{3-[2-(3-CHLOROPHENYL)-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using $N-(3-\{1-[5-(3-chlorophenyl)-5-oxopentyl]-4-piperidinyl\}phenyl)-2-methylpropanamide and phenylhydrazine: ESMS <math>m/e$: 514.2 $(M + H)^+$.

Example 730

N-[3-(1-{3-[2-(2-CHLOROPHENYL)-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using $N-(3-\{1-[5-(2-chlorophenyl)-5-oxopentyl]-4-piperidinyl\}phenyl)-2-methylpropanamide and phenylhydrazine: ESMS <math>m/e$: 514.2 $(M + H)^+$.

Example 731

 $N-[3-(1-{3-[2-(2-CHLOROPHENYL)-5-(TRIFLUOROMETHOXY)-1}H-INDOL-3-YL]$ PROPYL]-4-PIPERIDINYL) PHENYL]-2-

METHYLPROPANAMIDE: Prepared by Procedure E and Scheme M using $N-(3-\{1-[5-(2-\text{chlorophenyl})-5-\text{oxopentyl}]-4-\text{piperidinyl}\}\text{phenyl})-2-$ methylpropanamide and 4-(trifluoromethoxy)phenylhydrazine hydrochloride: ESMS m/e: 598.2 (M + H) $^+$.

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Example 732

N-[3-(1-{3-[2-(2-CHLOROPHENYL)-1H-BENZO[G]INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using $N-(3-\{1-[5-(2-chlorophenyl)-5-oxopentyl]-4-piperidinyl\}phenyl)-2-methylpropanamide and 1-naphthylhydrazine hydrochloride: ESMS <math>m/e$: $564.2 (M + H)^+$.

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N-[3-(1-{3-[2-(2-CHLOROPHENYL)-7-METHYL-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using N-(3-{1-[5-(2-chlorophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2-methylpropanamide and 1-(2-methylphenyl)hydrazine hydrochloride: ESMS m/e: 528.2 (M + H)⁺.

Example 734

N-[3-(1-{3-[2-(2-CHLOROPHENYL)-1-PHENYL-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using N-(3-{1-[5-(2-chlorophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2-methylpropanamide and 1,1-diphenylhydrazine hydrochloride: ESMS m/e: 590.2 (M + H)⁺.

Example 735

N-[3-(1-{3-[2-(2-CHLOROPHENYL)-1-METHYL-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

- Prepared by Procedure E and Scheme M using N-(3-{1-[5-(2-chlorophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2-methylpropanamide and 1-methyl-1-phenylhydrazine: ESMS m/e: 528.2 (M + H)⁺.
- 25 Example 736

 N-[3-(1-{3-[2-(2-CHLOROPHENYL)-5-METHYL-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

 Prepared by Procedure E and Scheme M using N-(3-{1-[5-(2-chlorophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2
 methylpropanamide and 4-methylphenylhydrazine
- methylpropanamide and 4-methylphenylhydrazine hydrochloride: ESMS m/e: 528.2 (M + H)⁺.

N-[3-(1-{3-[2-(3- IODOPHENYL)-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using N-(3-{1-[5-(3-iodophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2
methylpropanamide and phenylhydrazine: ESMS m/e: 606.2

(M + H)⁺.

Example 738

N-[3-(1-{3-[2-(3-IODOPHENYL)-1-METHYL-1H-INDOL-3
YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using N-(3-{1-[5-(3-iodophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2
methylpropanamide and 1-methyl-1-phenylhydrazine: ESMS

m/e: 620.2 (M + H)⁺.

Example 739

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N-[3-(1-{3-[2-(3-IODOPHENYL)-1-PHENYL-1H-INDOL-3-...
YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:
Prepared by Procedure E and Scheme M using N-(3-{1-[5-(3-iodophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2methylpropanamide and 1,1-diphenylhydrazine
hydrochloride: ESMS m/e: 682.2 (M + H)*.

Example 740

N-[3-(1-{3-[2-(3-IODOPHENYL)-1H-BENZO[G]INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using N-(3-{1-[5-(3-iodophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2-methylpropanamide and 1-naphthylhydrazine hydrochloride:

SMS m/e: 656.2 (M + H)*.

N-[3-(1-{3-[2-(3-

IODOPHENYL) -5-

(TRIFLUOROMETHOXY) -1H-INDOL-3-YL] PROPYL}-4-

PIPERIDINYL) PHENYL] -2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using $N-(3-\{1-[5-(3-iodophenyl)-5-oxopentyl]-4-piperidinyl\}phenyl)-2-methylpropanamide and 4-(trifluoromethoxy)phenylhydrazine hydrochloride: ESMS <math>m/e$: 690.2 (M + H)⁺.

10 Example 742

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N-[3-(1-{3-[2-(3-IODOPHENYL)-5-METHYL-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using N-(3-{1-[5-(3-iodophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2-methylpropanamide and 4-methylphenylhydrazine hydrochloride: ESMS m/e: 620.2 (M + H)⁺.

Example 743

 $N-[3-(1-{3-[2-(3-IODOPHENYL)-7-METHYL-1H-INDOL-3-$

YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using N-(3-{1-[5-(3-iodophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2
methylpropanamide and 1-(2-methylphenyl)hydrazine
hydrochloride: ESMS m/e: 620.2 (M + H)⁺.

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Example 744

N-[3-(1-{3-[2-(4-IODOPHENYL)-5-(TRIFLUOROMETHOXY)-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-

METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using $N-(3-\{1-[5-(4-iodophenyl)-5-oxopentyl]-4-piperidinyl\}phenyl)-2-methylpropanamide and 4-$

(trifluoromethoxy) phenylhydrazine hydrochloride: ESMS $m/e: 690.1 (M + H)^{+}$.

Example 745

N-[3-(1-{3-[2-(4-IODOPHENYL)-5-METHYL-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using N-(3-{1-[5-(4-iodophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2
methylpropanamide and 4-methylphenylhydrazine

hydrochloride: ESMS m/e: 620.1 (M + H)*.

Example 746

N-[3-(1-{3-[2-(4-IODOPHENYL)-7-METHYL-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

- Prepared by Procedure E and Scheme M using $N-(3-\{1-[5-(4-iodophenyl)-5-oxopentyl]-4-piperidinyl\}phenyl)-2-methylpropanamide and <math>1-(2-methylphenyl)hydrazinehydrochloride: ESMS <math>m/e: 620.1 \ (M+H)^+$.
- 20 Example 747

 N-[3-(1-{3-[2-(4-IODOPHENYL)-1-PHENYL-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

 Prepared by Procedure E and Scheme M using N-(3-{1-[5-(4-iodophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2
 methylpropanamide and 1,1-diphenylhydrazine
- methylpropanamide and 1,1-diphenylhydrazine hydrochloride: ESMS m/e: 682.1 (M + H).

Example 748

 $N-[3-(1-{3-[2-(4-IODOPHENYL)-1-METHYL-1}H-INDOL-3-$

30 YL] PROPYL}-4-PIPERIDINYL) PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using N-(3-{1-[5-(4-iodophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2-

methylpropanamide and 1- methyl-1-phenylhydrazine: ESMS m/e: 620.1 (M + H) $^+$.

Example 749

- N-[3-(1-{3-[2-(4-IODOPHENYL)-1H-BENZO[G]INDOL-3-YL]PROPYL}-4-PİPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

 Prepared by Procedure E and Scheme M using N-(3-{1-[5-(4-iodophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2
 methylpropanamide and 1-naphthylhydrazine hydrochloride:

 ESMS m/e: 656.1 (M + H)*.
 - Example 750

 $N-[3-(1-\{3-[2-(4-IODOPHENYL)-1H-INDOL-3-YL]PROPYL\}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:$

- Prepared by Procedure E and Scheme M using $N-(3-\{1-[5-(4-iodophenyl)-5-oxopentyl]-4-piperidinyl\}phenyl)-2-methylpropanamide and phenylhydrazine: ESMS <math>m/e:$ 606.1 $(M + H)^+$.
- 20 Example 751

 N-[3-(1-{3-[2-(3-BROMOPHENYL)-5-(TRIFLUOROMETHOXY)-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2
 METHYLPROPANAMIDE: Prepared by Procedure E and Scheme M using

 N-(3-{1-[5-(3-bromophenyl)-5-oxopentyl]-4
 piperidinyl}phenyl)-2-methylpropanamide and 4
 (trifluoromethoxy)phenylhydrazine hydrochloride: ESMS

 m/e: 642.0 (M + H)*.

Example 752

N-[3-(1-{3-[2-(4-BROMOPHENYL)-1H-BENZO[G]INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using N-(3-{1-[5-(4-bromophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2-

methylpropanamide and 1- naphthylhydrazine hydrochloride: ESMS m/e: 608.0 (M + H) $^+$.

Example 753

N-[3-(1-{3-[2-(4-BROMOPHENYL)-7-METHYL-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using N-(3-{1-[5-(4-bromophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2
methylpropanamide and 1-(2-methylphenyl)hydrazine
hydrochloride: ESMS m/e: 572 (M + H)⁺.

Example 754

N-[3-(1-{3-[2-(4-BROMOPHENYL)-5-(TRIFLUOROMETHOXY)-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-

METHYLPROPANAMIDE: Prepared by Procedure E and Scheme M using $N-(3-\{1-[5-(4-\text{bromophenyl})-5-\text{oxopentyl}]-4-\text{piperidinyl}\}$ phenyl)-2-methylpropanamide and : 4-(trifluoromethoxy)phenylhydrazine hydrochloride: ESMS m/e: 642 (M + H) $^+$.

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Example 755

N-[3-(1-{3-[2-(3-BROMOPHENYL)-1H-BENZO[G]INDOL-3YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:
Prepared by Procedure E and Scheme M using N-(3-{1-[5-(3-bromophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2methylpropanamide and 1-naphthylhydrazine hydrochloride:
ESMS m/e: 608.0 (M + H)*.

Example 756

N-[3-(1-{3-[2-(4-BROMOPHENYL)-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE: Prepared by Procedure E and Scheme M using N-(3-{1-[5-(4-bromophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2-

methylpropanamide and phenylhydrazine: ESMS m/e: 558.1 (M + H) $^+$.

Example 757

N-[3-(1-{3-[2-(3-BROMOPHENYL)-1-PHENYL-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using N-(3-{1-[5-(3-bromophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2-methylpropanamide and 1,1-diphenylhydrazine hydrochloride: ESMS m/e: 634.0 (M + H)*.

Example 758

N-[3-(1-{3-[2-(3-BROMOPHENYL)-1-METHYL-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using N-(3-{1-[5-(3-bromophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2-methylpropanamide and 1-methyl-1-phenylhydrazine: ESMS m/e: 572.0 (M + H)⁺.

20 Example 759
N-[3-(1-{3-[2-(4-BROMOPHENYL)-1-METHYL-1H-INDOL-3YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:
Prepared by Procedure E and Scheme M using N-(3-{1-[5-(4-bromophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2methylpropanamide and 1-methyl-1-phenylhydrazine: ESMS
m/e: 572.0 (M + H)*.

Example 760

N-[3-(1-{3-[2-(4-BROMOPHENYL)-1-PHENYL-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using N-(3-{1-[5-(4-bromophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2methylpropanamide and 1,1- diphenylhydrazine hydrochloride: ESMS m/e: 634.0 (M + H) $^{+}$.

Example 761

N-[3-(1-{3-[2-(4-BROMOPHENYL)-5-METHOXY-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using N-(3-{1-[5-(4-bromophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2
methylpropanamide and 4-methoxyphenylhydrazine
hydrochloride: ESMS m/e: 588.1 (M + H)⁺.

Example 762

N-[3-(1-{3-[2-(3-BROMOPHENYL)-7-METHYL-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using $N-(3-\{1-[5-(3-bromophenyl)-5-oxopentyl]-4-piperidinyl\}phenyl)-2-methylpropanamide and <math>1-(2-methylphenyl)$ hydrazine hydrochloride: ESMS m/e: 572 (M + H).

20 Example 763

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N-[3-(1-{3-[2-(3-BROMOPHENYL)-5-METHYL-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using N-(3-{1-[5-(3-bromophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2-methylpropanamide and 4-methylphenylhydrazine hydrochloride: ESMS m/e: 572 (M + H)⁺.

Example 764

N-[3-(1-{3-[2-(4-BROMOPHENYL)-5-METHYL-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using N-(3-{1-[5-(4-bromophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2methylpropanamide and 4- methylphenylhydrazine hydrochloride: ESMS m/e: 572.0 (M + H)⁺.

Example 765

N-[3-(1-{3-[2-(3-BROMOPHENYL)-5-METHOXY-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using N-(3-{1-[5-(3-bromophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2-methylpropanamide and 4-methoxyphenylhydrazine hydrochloride: ESMS m/e: 588.0 (M + H)⁺.

Example 766

2-METHYL-N-[3-(1-{3-[2-(3-NITROPHENYL)-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]PROPANAMIDE:

- Prepared by Procedure E and Scheme M using 2-methyl-N-(3-{1-[5-(3-nitrophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)propanamide and phenylhydrazine. ESMS m/e: 525.2 (M + H)⁺.
- 20 Example 767

 2-METHYL-N-[3-(1-{3-[2-(3-NITROPHENYL)-1H-BENZO[G]INDOL3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]PROPANAMIDE:

 Prepared by Procedure E and Scheme M using 2-methyl-N(3-{1-[5-(3-nitrophenyl)-5-oxopentyl]-4piperidinyl}phenyl)propanamide and 1-naphthylhydrazine

Example 768

 $2-METHYL-N-[3-(1-{3-[2-(3-NITROPHENYL)-5-$

hydrochloride: ESMS m/e: 575.1 (M + H)⁺.

(TRIFLUOROMETHOXY) - 1H-INDOL-3-YL] PROPYL}-4PIPERIDINYL) PHENYL] PROPANAMIDE: Prepared by Procedure E
and Scheme M using 2-methyl-N-(3-{1-[5-(3-nitrophenyl)-5-oxopentyl]-4-piperidinyl} phenyl) propanamide and 4-

(trifluoromethoxy) phenylhydrazine hydrochloride: ESMS $m/e: 609.1 (M + H)^{+}$.

Example 769

2-METHYL-N-[3-(1-{3-[5-METHYL-2-(3-NITROPHENYL)-lH-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]PROPANAMIDE:

Prepared by Procedure E and Scheme M using 2-methyl-N-(3-{1-[5-(3-nitrophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)propanamide and 4-methylphenylhydrazine hydrochloride: ESMS m/e: 539.2 (M+H).

Example 770

N-[3-(1-{3-[5-METHOXY-2-(3-NITROPHENYL)-1H-INDOL-3
YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using 2-methyl-N
(3-{1-[5-(3-nitrophenyl)-5-oxopentyl]-4
piperidinyl}phenyl)propanamide and 4
methoxyphenylhydrazine hydrochloride: ESMS m/e: 555.2 (M

Example 771

+ H) .

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2-METHYL-N-[3-(1-{3-[2-(3-NITROPHENYL)-1-PHENYL-1H-INDOL-3-YL] PROPYL}-4-PIPERIDINYL) PHENYL] PROPANAMIDE:

Prepared by Procedure E and Scheme M using 2-methyl-N-(3-{1-[5-(3-nitrophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)propanamide and 1,1-diphenylhydrazine hydrochloride: ESMS m/e: 601.1 (M + H) $^{+}$.

30 Example 772

2-METHYL-N-[3-(1-{3-[1-METHYL-2-(3-NITROPHENYL)-1H-INDOL-3-YL] PROPYL}-4-PIPERIDINYL) PHENYL] PROPANAMIDE:

Prepared by Procedure E and Scheme M using 2-methyl-N-

(3-{1-[5-(3-nitrophenyl)- 5-oxopentyl]-4-piperidinyl}phenyl)propanamide and 1-methyl-1-phenylhydrazine: ESMS m/e: 539.2 (M + H)⁺.

5 Example 773

2-METHYL-N-[3-(1-{3-[7-METHYL-2-(3-NITROPHENYL)-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]PROPANAMIDE:

Prepared by Procedure E and Scheme M using 2-methyl-N-

Prepared by Procedure E and Scheme M using 2-methyl-N-(3- $\{1-[5-(3-nitrophenyl)-5-oxopentyl]-4-$

piperidinyl}phenyl)propanamide and 1-(2-methylphenyl)hydrazine hydrochloride: ESMS m/e: 539.2 (M + H).

Example 774

N-[3-(1-{3-[5-METHOXY-2-(4-NITROPHENYL)-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using 2-methyl-N-(3-{1-[5-(4-nitrophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)propanamide and 4-piperidinyl}phenyl)propanamide and 4-methoxyphenylhydrazine hydrochloride: ESMS m/e: 555.6 (M+H).

Example 775

N-[3-(1-{3-[2-(2-BROMOPHENYL)-1H-INDOL-3-YL]PROPYL}-4
PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE: Prepared by

Procedure E and Scheme M using N-(3-{1-[5-(2-bromophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2
methylpropanamide and phenylhydrazine: ESMS m/e: 557.9

(M + H)*.

Example 776

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2-METHYL-N-[3-(1-{3-[5-METHYL-2-(4-NITROPHENYL)-1H-INDOL-3-YL] PROPYL}-4-PIPERIDINYL) PHENYL] PROPANAMIDE:

Prepared by Procedure E and Scheme M using 2-methyl-N-(3-{1-[5-(4-nitrophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)propanamide and 4-methylphenylhydrazine hydrochloride: ESMS m/e: 539.1 (M+H)*.

Example 777

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2-METHYL-N-[3-(1-{3-[2-(4-NITROPHENYL)-1H-BENZO[G]INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]PROPANAMIDE: Prepared by Procedure E and Scheme M using 2-methyl-N-(3-{1-[5-(4-nitrophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)propanamide and 1-naphthylhydrazine hydrochloride: ESMS m/e: 574.7 (M + H)⁺.

15 Example 778

2-METHYL-N-(3-{1-[(5E)-5-(4-NITROPHENYL)-5-(PHENYLHYDRAZONO) PENTYL]-4-PIPERIDINYL}PHENYL) PROPANAMIDE:

Prepared by Procedure E and Scheme AX using 2-methyl-N
(3-{1-[5-(4-nitrophenyl)-5-oxopentyl]-4piperidinyl}phenyl)propanamide and phenylhydrazine: ESMS

m/e: 542.4 (M + H)⁺.

Example 779

2-METHYL-N-[3-(1-{3-[7-METHYL-2-(4-NITROPHENYL)-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]PROPANAMIDE:

Prepared by Procedure E and Scheme M using 2-methyl-N-(3-{1-[5-(4-nitrophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)propanamide and 1-(2-methylphenyl)phenyl)propanamide and 1-(2-methylphenyl)hydrazine hydrochloride: ESMS m/e: 538.8 (Methylphenyl)hydrazine hydrochloride: ESMS m/e: 538.8 (Methylphenyl)hydrazine

2-METHYL-N-{3-[1-((5E)-5- (4-NITROPHENYL)-5-{[4-(TRIFLUOROMETHOXY) PHENYL] HYDRAZONO}PENTYL)-4PIPERIDINYL] PHENYL} PROPANAMIDE: Prepared by Procedure E and Scheme M using 2-methyl-N-(3-{1-[5-(4-nitrophenyl)-5-oxopentyl]-4-piperidinyl}phenyl) propanamide and 4-(trifluoromethoxy) phenylhydrazine hydrochloride: ESMS m/e: 626.2 (M + H)⁺.

Example 781

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N-[3-(1-{3-[2-(2-BROMOPHENYL)-1H-BENZO[G]INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using N-(3-{1-[5-(2-bromophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2
methylpropanamide and 1-naphthylhydrazine hydrochloride:

ESMS m/e: 608.0 (M + H)⁺.

Example 782

N-[3-(1-{3-[2-(2-BROMOPHENYL)-5-(TRIFLUOROMETHOXY)-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-

METHYLPROPANAMIDE: Prepared by Procedure E and Scheme M using $N-(3-\{1-[5-(2-bromophenyl)-5-oxopentyl]-4-piperidinyl\}phenyl)-2-methylpropanamide and 4-(trifluoromethoxy)phenylhydrazine hydrochloride: ESMS <math>m/e$: 641.9 (M + H) $^+$.

Example 783

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N-[3-(1-{3-[2-(2-BROMOPHENYL)-7-METHYL-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using N-(3-{1-[5-(2-bromophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2-methylpropanamide and 1-(2-methylphenyl)hydrazine hydrochloride: ESMS m/e: 572.0 (M + H).

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N-[3-(1-{3-[2-(2-BROMOPHENYL)-1-PHENYL-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using N-(3-{1-[5-(2-bromophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2
methylpropanamide and 1,1-diphenylhydrazine

hydrochloride: ESMS m/e: 634 (M + H)⁺.

Example 785

N-[3-(1-{3-[2-(2-BROMOPHENYL)-5-METHYL-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using N-(3-{1-[5-(2-bromophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2
methylpropanamide and 4-methylphenylhydrazine

hydrochloride: ESMS m/e: 572.0 (M + H)⁺.

Example 786

N-[3-(1-{3-[2-(2-IODOPHENYL)-5-(TRIFLUOROMETHOXY)-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-

Prepared by Procedure E and Scheme M using N-(3-{1-[5-(2-iodophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2-methylpropanamide and 4-(trifluoromethoxy)phenylhydrazine hydrochloride: ESMS m/e: 690.0 (M + H)⁺.

Example 787

N-[3-(1-{3-[2-(2-IODOPHENYL)-5-METHYL-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using N-(3-{1-[5-(2-iodophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2- *
methylpropanamide and 4-methylphenylhydrazine
hydrochloride: ESMS m/e: 620.2 (M + H)*.

2-METHYL-N-[3-(1-{3-[1-METHYL-2-(4-NITROPHENYL)-1H-INDOL-3-YL] PROPYL}-4-PIPERIDINYL) PHENYL] PROPANAMIDE:

Prepared by Procedure E and Scheme M using 2-methyl-N-(3-{1-[5-(4-nitrophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)propanamide and 1-methyl-1-phenylhydrazine: ESMS m/e: 539.6 (M + H) $^+$.

10 Example 789

2-METHYL-N-[3-(1-{3-[2-(4-NITROPHENYL)-1-PHENYL-1H-INDOL-3-YL] PROPYL}-4-PIPERIDINYL) PHENYL] PROPANAMIDE:

Prepared by Procedure E and Scheme M using 2-methyl-N-(3-{1-[5-(4-nitrophenyl)-5-oxopentyl]-4-

piperidinyl}phenyl)propanamide and 1,1-diphenylhydrazine hydrochloride: ESMS m/e: 601.6 $(M + H)^+$.

Example 790

 $N-[3-(1-{3-[2-(2-IODOPHENYL)-1H-INDOL-3-YL]PROPYL}-4-$

20 PIPERIDINYL) PHENYL] - 2 - METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using $N-(3-\{1-[5-(2-iodophenyl)-5-oxopentyl]-4-piperidinyl\}phenyl)-2-methylpropanamide and phenylhydrazine: ESMS <math>m/e$: 606.1 $(M + H)^+$.

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Example 791

N-[3-(1-{3-[2-(2-IODOPHENYL)-1H-BENZO[G]INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE: Prepared by Procedure E and Scheme M using N-(3-{1-[5-

(2-iodophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2methylpropanamide and 1-naphthylhydrazine hydrochloride:
ESMS m/e: 656.1 (M + H)*.

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N-[3-(1-{3-[2-(2-IODOPHENYL)-1-PHENYL-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using N-(3-{1-[5-(2-iodophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2
methylpropanamide and 1,1-diphenylhydrazine

hydrochloride: ESMS m/e: 682.1 (M + H)*.

Example 793

N-[3-(1-{3-[2-(2-IODOPHENYL)-7-METHYL-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using N-(3-{1-[5-(2-iodophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2
methylpropanamide and 1-(2-methylphenyl)hydrazine
hydrochloride: ESMS m/e: 619.6 (M + H)⁺.

Example 794

N-[3-(1-{3-[2-(2-BROMOPHENYL)-1-METHYL-1H-INDOL-3-YL]PROPYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure E and Scheme M using $N-(3-\{1-[5-(2-bromophenyl)-5-oxopentyl]-4-piperidinyl\}phenyl)-2-methylpropanamide and 1-methyl-1-phenylhydrazine: ESMS <math>m/e$: 572 (M + H)⁺.

25 Example 795

 $553.0 (M + H)^{+}$.

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4-(3,4-DIFLUOROPHENYL)-N-(3-{4-[3-(ISOBUTYRYLAMINO) PHENYL]-1-PIPERIDINYL}PROPYL)-2-METHYL-6-OXO-1,4,5,6-TETRAHYDRO-3-PYRIDINECARBOXAMIDE:

Prepared by Procedure AC and Scheme AM using 4-(3,4-difluorophenyl)-2-methyl-6-oxo-1,4,5,6-tetrahydro-3-pyridinecarboxylic acid and N-{3-[1-(3-aminopropyl)-4-piperidinyl]phenyl}-2-methylpropanamide: ESMS m/e:

4-(2,4-DIFL

UOROPHENYL) -N-(3-{4-[3-(ISOBUTYRYLAMINO) PHENYL]-1-PIPERIDINYL}PROPYL) -2-METHYL-6-OXO-1,4,5,6-TETRAHYDRO-3-PYRIDINECARBOXAMIDE: Prepared by Procedure AC and Scheme AM using 4-(2,4-difluorophenyl) -2-methyl-6-oxo-1,4,5,6-tetrahydro-3-pyridinecarboxylic acid and N-{3-[1-(3-aminopropyl)-4-piperidinyl]phenyl}-2-methylpropanamide: ESMS m/e: 553.0 (M + H)⁺.

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Example 797

N-(3-{1-[4-(4-METHOXYPHENYL)BUTYL]-4
PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by

Procedure O and Scheme W using 4-(4-methoxyphenyl)-1
butanol and 2-methyl-N-[3-(4
piperidinyl)phenyl]propanamide: ESMS m/e: 409 (M + H)⁺.

Example 798

PIPERIDINYL) PROPANAMIDE: Prepared by Procedure O and Scheme W using 3-(1,2-diphenyl-1H-indol-3-yl)-1-propanol and N-[4-(4-piperidinyl)phenyl] propanamide: ESMS m/e: 542.0 (M + H)*.

 $N-(4-\{1-[3-(1,2-DIPHENYL-1H-INDOL-3-YL)] -4-$

25 Example 799
N-{4-[1-(3,3-DIPHENYLPROPYL)-4-

PIPERIDINYL]PHENYL}PROPANAMIDE: Prepared by Procedure 0
and Scheme W using 3,3-diphenyl-1-propanol and
N-[4-(4-piperidinyl)phenyl]propanamide: ESMS m/e: 427.0
(M + H)*.

Example 800

2-METHYL-N-(3-{1-[4-(4-NITROPHENYL)BUTYL]-4-PIPERIDINYL}PHENYL): Prepared by Procedure O and Scheme W using 4-(4-nitrophenyl)-1-butanol and 2-methyl-N-[3-(4-piperidinyl)phenyl]propanamide: ESMS m/e: 424.2 (M + H)⁺.

Example 801

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2-METHYL-N-(3-{1-[2-(1-NAPHTHYL)ETHYL]-4PIPERIDINYL}PHENYL)PROPANAMIDE Prepared by Procedure O
and Scheme W using 2-(1-naphthyl)ethanol and 2-methyl-N[3-(4-piperidinyl)phenyl]propanamide: ESMS m/e: 401.2 (M
+ H)⁺.

Example 802

- N-{3-[1-(3,3-DIPHENYLPROPYL)-4-PIPERIDINYL]PHENYL}-2-METHYLPROPANAMIDE: Prepared by Procedure O and Scheme W using 3,3-diphenyl-1-propanol and 2-methyl-N-[3-(4piperidinyl)phenyl]propanamide: ESMS m/e: 441.2 (M + H)⁺.
- 20 Example 803

 N-(3-{1-[3-(3,4-DIMETHOXYPHENYL)PROPYL]-4
 PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by

 Procedure O and Scheme W using 3-(3,4-dimethoxyphenyl)
 1-propanol and 2-methyl-N-[3-(4
 piperidinyl)phenyl]propanamide: ESMS m/e: 425.2 (M + H)⁺.

Example 804

2-METHYL-N-{3-[1-(3-PHENYLPROPYL)-4PIPERIDINYL]PHENYL}PROPANAMIDE: Prepared by Procedure O
and Scheme W using 3-phenyl-1-propanol and
2-methyl-N-[3-(4-piperidinyl)phenyl]propanamide: ESMS
m/e: 365.2 (M + H)⁺.

2-METHYL-N-(3-{1-[3-(4-PYRIDINYL) PROPYL]-4-

PIPERIDINYL PHENYL) PROPANAMIDE: Prepared by Procedure O and Scheme W using 3-(4-pyridinyl)-1-propanol and $2-methyl-N-[3-(4-piperidinyl)phenyl] propanamide: ESMS m/e: <math>366.2 (M + H)^{+}$.

Example 806

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N-{3-[1-(4-TERT-BUTYLBENZYL)-4-PIPERIDINYL]PHENYL}-2-

METHYLPROPANAMIDE: Prepared by Procedure AJ and Scheme AV using 1-bromomethyl)-4-tert-butylbenzene and 2-methyl-N-[3-(4-piperidinyl)phenyl]propanamide: ESMS m/e: 393.0 (M + H)⁺.

15 Example 807

N-{3-[1-(4-BENZOYLBENZYL)-4-PIPERIDINYL]PHENYL}-2METHYLPROPANAMIDE: Prepared by Procedure AJ and Scheme
AV using [4-(bromomethyl)phenyl](phenyl)methanone and 2methyl-N-[3-(4-piperidinyl)phenyl]propanamide: ESMS m/e:
441.0 (M + H)*.

1,2-DICHLORO-4-{[(1S)-3-CHLORO-1PHENYLPROPYL]OXY}BENZENE: Prepared by Procedure A using
3,4-dichlorophenol and (1R)-3-chloro-1-phenyl-1propanol.

Example 808

N-(3-{1-[(3s)-3-(3,4-DICHLOROPHENOXY)-3-PHENYLPROPYL]-4-PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by

Procedure A using 1,2-dichloro-4-{[(1s)-3-chloro-1-phenylpropyl]oxy}benzene and 2-methyl-N-[3-(4-piperidinyl)phenyl]propanamide: ESMS m/e: 525.3 (M + H).*

N-(3-{1-[6-(2-FLUOROPHENYL)-6-HYDROXYHEXYL]-4PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by
Procedure L and Scheme AN using N-(3-{1-[6-(2-fluorophenyl)-6-oxohexyl]-4-piperidinyl}phenyl)-2methylpropanamide: ESMS m/e: 441.3 (M + H)⁺.

Example 810

N-[3-(1-{5-HYDROXY-5-[4-(TRIFLUOROMETHYL) PHENYL] PENTYL}4-PIPERIDINYL) PHENYL]-2-METHYLPROPANAMIDE: Prepared by
Procedure L and Scheme AN using 2-methyl-N-[3-(1-{5-oxo-5-[4-(trifluoromethyl) phenyl] pentyl}-4piperidinyl) phenyl] propanamide: ESMS m/e: 477.2 (M + H)*.

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Example 811

N-(3-{1-[5-(4-FLUOROPHENYL)-5-HYDROXYPENTYL]-4
PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by

Procedure L and Scheme AN using N-(3-{1-[5-(4-fluorophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2
methylpropanamide: ESMS m/e: 427.2 (M + H)⁺.

Example 812

 $N-(3-\{1-[7-(2-FLUOROPHENYL)-7-HYDROXYHEPTYL]-4-$

Procedure L and Scheme AN using N-(3-{1-[7-(2-fluorophenyl)-7-oxoheptyl]-4-piperidinyl}phenyl)-2-methylpropanamide: ESMS m/e: 455.2 (M + H).

30 **Example 813**

N-(3-{1-[6-(3-FLUOROPHENYL)-6-HYDROXYHEXYL]-4PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by
Procedure L and Scheme AN using N-(3-{1-[6-(3-

fluorophenyl)-6-oxohexyl]- 4-piperidinylphenyl-2-methylpropanamide: ESMS m/e: 441.2 (M + H) $^+$.

Example 814

N-(3-{1-[5-(2-FLUOROPHENYL)-5-HYDROXYPENTYL]-4PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by
Procedure L and Scheme AN using N-(3-{1-[5-(2-fluorophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2methylpropanamide: ESMS m/e: 427.2 (M + H)⁺.

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Example 815

 $N-(3-\{1-[5-(3-FLUOROPHENYL)-5-HYDROXYPENTYL]-4-PIPERIDINYL\}$ PHENYL)-2-METHYLPROPANAMIDE: Prepared by Procedure L and Scheme AN using $N-(3-\{1-[5-(3-fluorophenyl)-5-oxopentyl]-4-piperidinyl\}$ phenyl)-2-methylpropanamide: ESMS m/e: 427.2 (M + H) $^+$.

Example 816

 $N-(3-\{1-[5-(3-CHLOROPHENYL)-5-HYDROXYPENTYL]-4-$

Procedure L and Scheme AN using N-(3-{1-[5-(3-chlorophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2-methylpropanamide: ESMS m/e: 443.1 (M + H)⁺.

25 **Example 817**

N-(3-{1-[6-(4-FLUOROPHENYL)-6-HYDROXYHEXYL]-4PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by
Procedure L and Scheme AN using N-(3-{1-[6-(4-fluorophenyl)-6-oxohexyl]-4-piperidinyl}phenyl)-2-

methylpropanamide: ESMS m/e: 441.2 (M + H)⁺.

 $N-(3-\{1-[6-(4-CHLOROPHENYL)-6-HYDROXYHEXYL]-4-PIPERIDINYL\}PHENYL)-2-METHYLPROPANAMIDE: Prepared by Procedure L and Scheme AN using <math>N-(3-\{1-[6-(4-Chlorophenyl)-6-oxohexyl]-4-piperidinyl\}phenyl)-2-methylpropanamide: ESMS <math>m/e$: 456.9 (M + H)⁺.

Example 819

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 $N-(3-\{1-[5-(4-CHLOROPHENYL)-5-HYDROXYPENTYL]-4-$

PIPERIDINYL PHENYL) - 2-METHYLPROPANAMIDE: Prepared by Procedure L and Scheme AN using N-(3-{1-[5-(4-chlorophenyl)-5-oxopentyl]-4-piperidinyl}phenyl)-2-methylpropanamide: ESMS m/e: 443.0 (M + H)⁺.

15 Example 820

N-(4-{1-[(9-ETHYL-9H-CARBAZOL-3-YL)METHYL]-4PIPERIDINYL}PHENYL)BUTANAMIDE: Prepared by Procedure F
and Scheme R, without HOAc, using 9-ethyl-9H-carbazole3-carbaldehyde and N-[4-(4-piperidinyl)phenyl]butanamide: ESMS m/e: 454.2 (M + H)*.

Example 821

N-(3-{1-[(9-ETHYL-9H-CARBAZOL-3-YL)METHYL]-4PIPERIDINYL}PHENYL)PROPANAMIDE: Prepared by Procedure F
and Scheme R, without HOAc, using 9-ethyl-9H-carbazole3-carbaldehyde and N-[3-(4piperidinyl)phenyl]propanamide: ESMS m/e: 440.5 (M + H)⁺.

Example 822

N-(3-{1-[(1,9-DIMETHYL-9H-CARBAZOL-3-YL)METHYL]-4PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by
Procedure F and Scheme R, without HOAc, using 1,9dimethyl-9H-carbazole-3-carbaldehyde and 2-methyl-N-[3-

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piperidinyl)phenyl]propanamide: 1 H NMR (400 MHz, CDCl₃) δ 8.05-6.77 (m, 10H), 5.20-5.12 (m, 1H), 4.04 (s, 3H), 3.93 (s, 2H), 3.34-3.24 (m, 2H), 2.79 (s, 3H), 2.56-2.38 (m, 2H), 2.38-2.26 (m, 2H), 2.08-1.88 (m, 2H), 1.82-1.70 (m, 2H), 1.16 (d, 6H, J = 6.8 Hz); ESMS m/e: 454.2 (M + H) $^{+}$.

Example 823

N-(3-{1-[(9-ETHYL-9H-CARBAZOL-3-YL)METHYL]-4PIPERIDINYL}PHENYL)CYCLOPROPANECARBOXAMIDE: Prepared by
Procedure F and Scheme R, without HOAc, using 9-ethyl9H-carbazole-3-carbaldehyde and N-[3-(4piperidinyl)phenyl]cyclopropanecarboxamide: ESMS m/e:
452.6 (M + H)⁺.

Example 824

1-(3-{1-[(9-ETHYL-9H-CARBAZOL-3-YL)METHYL]-4-PIPERIDINYL PHENYL) - 2-PYRROLIDINONE: Prepared by Scheme A solution of 1-(9-ethyl-9H-R and Procedure F. carbazol-3-yl)ethanone (22.3 mg, 0.100 mmol) and 1-[3-(4-piperidinyl)phenyl]-2-pyrrolidinone (27.2 mg, 0.100 mmol) in 1,2-dichloroethane (1.00 mL) was treated with sodium triacetoxyborohydride (63.6 mg, 0.300 mmol) and The mixture was stirred HOAc (5.70 uL, 0.100 mmol). The reaction mixture was overnight at room temperature. treated with a saturated aqueous $NaHCO_3$ solution (10 mL). The aqueous layer was extracted with CH_2Cl_2 (3 X 10 mL) and the combined organic layers were washed with brine (10 mL), dried over MgSO₄ and concentrated in vacuo. residue was purified by preparative TLC using 5% of NH_3 (2.0 M in methanol) in CH2Cl2 to give the desired product 1-(3-{1-[(9-ethyl-9H-carbazol-3-yl)methyl]-4piperidinyl}phenyl)-2- pyrrolidinone (4.60 mg, 9.43 %): 1 H NMR (400 MHz, CDCl₃) δ 8.04 (d, 1H, J = 7.4 Hz), 7.99 (s, 1H), 7.43-7.28 (m, 5H), 6.96 (d, 1H, J = 7.4 Hz), 4.31 (q, 2H, J = 6.8 Hz), 3.77 (t, 2H, J = 7.3 Hz), 3.70 (s, 2H), 3.06 (d, 2H, J = 10.6 Hz), 2.56-2.42 (m, 3H), 2.07 (m, 4H), 1.77 (m, 4H), 1.36 (m, 3H); ESMS m/e: 452.5 (M + H)⁺.

N-{3-[1-(1H-INDOL-5-YLMETHYL)-4-PIPERIDINYL]PHENYL}-2
METHYLPROPANAMIDE: Prepared by Procedure F and Scheme R, without HOAc, using 1H-indole-5-carbaldehyde and 2-methyl-N-[3-(4-piperidinyl)phenyl]propanamide: ESMS m/e: 376.2 (M + H)⁺.

1- (4-CHLOROBUTYL)-1H-INDOLE: Prepared by Procedure AH, and Scheme P using 1H-indole and 1-bromo-4-chlorobutane: ^{1}NMR (400 MHz, CDCl₃) δ 7.72-7.02 (m, 5H), 6.49 (d, 1H, J = 2.8 Hz), 4.13 (t, 2H, J = 6.8 Hz), 3.48 (t, 2H, J = 6.8 Hz), 2.06-1.92 (m, 2H), 1.80-1.70 (m, 2H).

1-(3-CHLOROPROPYL)-1H-INDOLE: Prepared by Procedure AH, and Scheme P using 1H-indole and 1-bromo-3-chloropropane: 1 H NMR (400 MHz, CDCl₃) δ 7.70-7.04 (m, 5H), 6.50 (d, 1H, J = 2.8 Hz), 4.31 (t, 2H, J = 6.8 Hz), 3.42 (t, 2H, J = 6.4 Hz), 2.28-2.20 (m, 2H).

Example 825

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N-(4-{1-[5-(1H-INDOL-1-YL)PENTYL]-4-PIPERIDINYL}PHENYL)2-METHYLPROPANAMIDE: Prepared by Procedure AH and

Scheme P using 1-(5-chloropentyl)-1H-indole and 2methyl-N-[4-(4-piperidinyl)phenyl]propanamide: ESMS m/e:

432.3 (M + H)⁺.

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N-(4-{1-[5-(1H-INDOL-1-YL) PENTYL]-4-

PIPERIDINYL) PHENYL) BUTANAMIDE: Prepared by Procedure AH and Scheme P using 1-(5-chloropentyl)-1H-indole and N[4-(4-piperidinyl) phenyl] butanamide: ESMS m/e: 432.3 (M + H) $^{+}$.

Example 827

 $N-(4-\{1-[5-(1H-INDOL-1-YL) PENTYL]-4-$

PIPERIDINYL) PHENYL) PROPANAMIDE: Prepared by Procedure AH and Scheme P using 1-(5-chloropentyl)-1H-indole and N-[4-(4-piperidinyl) phenyl] propanamide: ESMS m/e: 418.2 (M + H).

15 Example 828

N-(4-{1-[6-(1H-INDOL-1-YL)HEXYL]-4PIPERIDINYL}PHENYL)PROPANAMIDE: Prepared by Procedure
AH and Scheme P using 1-(6-chlorohexyl)-1H-indole and N[4-(4-piperidinyl)phenyl]propanamide: ESMS m/e: 432.3 (M+H).

Example 829

2-METHYL-N-(3-{1-[(1-METHYL-1H-INDOL-2-YL)METHYL]-4-PIPERIDINYL}PHENYL)PROPANAMIDE: Prepared by Procedure F and Scheme R, without HOAc, using 1-methyl-1H-indole-2-carbaldehyde and 2-methyl-N-[3-(4-piperidinyl)phenyl]propanamide: ESMS m/e: 390.3 (M + H).

Example 830

N-{3-[1-(1H-INDOL-4-YLMETHYL)-4-PIPERIDINYL]PHENYL}-2-METHYLPROPANAMIDE: Prepared by Procedure F and Scheme R, without HOAc, using 1H-indole-4-carbaldehyde and 2methyl-N-[3-(4-piperidinyl)phenyl]propanamide: ESMS m/e: 376.2 (M + H)⁺.

Example 831

N-(4-{1-[6-(1H-INDOL-1-YL)HEXYL]-4-PIPERIDINYL}PHENYL)2-METHYLPROPANAMIDE: Prepared by Procedure AH and
Scheme P using 1-(6-chlorohexyl)-1H-indole and 2-methylN-[4-(4-piperidinyl)phenyl]propanamide: ESMS m/e: 446.3
(M + H)⁺.

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Example 832

 $N-\{3-[1-(1H-INDOL-7-YLMETHYL)-4-PIPERIDINYL] PHENYL\}-2-METHYLPROPANAMIDE: Prepared by Procedure F and Scheme R, without HOAc, using <math>1H$ -indole-7-carbaldehyde and 2-methyl-N-[3-(4-piperidinyl) phenyl] propanamide: ESMS <math>m/e: 376.2 $(M + H)^+$.

Example 833

N-[3-(1-{[1-(4-METHOXYPHENYL)-1H-INDOL-5-YL]METHYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE: Prepared by Procedure C and Scheme Q1, with CuBr in place of Cu, using 1-iodo-4-methoxybenzene and N-{3-[1-(1H-indol-5-Ylmethyl)-4-piperidinyl]phenyl}-2-methylpropanamide: ESMS m/e: 482.0 (M + H)⁺.

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Example 834

METHYL

4-[4-({4-[3-(ISOBUTYRYLAMINO)PHENYL]-1-PIPERIDINYL}METHYL)-1H-INDOL-1-YL]BENZOATE: Prepared by Procedure C and Scheme Q1, with CuBr in place of Cu, using methyl 4-iodobenzoate and N-{3-[1-(1H-indol-4-ylmethyl)-4-piperidinyl]phenyl}-2-methylpropanamide:

ESMS m/e: 510.3 (M + H)*.

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2-METHYL-N-[3-(1-{[1-(3-METHYLPHENYL)-1H-INDOL-5-YL]METHYL}-4-PIPERIDINYL)PHENYL]PROPANAMIDE: Prepared by Procedure C and Scheme Q1, with CuBr in place of Cu, using 1-iodo-3-methylbenzene and N-{3-[1-(1H-indol-5-ylmethyl)-4-piperidinyl]phenyl}-2-methylpropanamide: ESMS m/e: 466.3 (M + H)⁺.

Example 836

N-[3-(1-{[1-(4-FLUOROPHENYL)-1H-INDOL-4-YL]METHYL}-4PIPERIDINYL) PHENYL] -2-METHYLPROPANAMIDE: Prepared by
Procedure C and Scheme Q1, with CuBr in place of Cu,
using 1-fluoro-4-iodobenzene and N-{3-[1-(1H-indol-4-ylmethyl)-4-piperidinyl]phenyl}-2-methylpropanamide: ¹H

NMR (400 MHz, CDCl₃) δ 7.66-6.92 (m, 12H), 6.65 (d, 1H, J
= 3.2 Hz), 3.69 (s, 2H), 3.15-3.02 (m, 2H), 2.58-2.40
(m, 2H), 2.20-2.04 (m, 2H), 1.94-1.76 (m, 4H), 1.25 (d, 6H, J = 6.8 Hz); ESMS m/e: 470.6 (M + H)⁺.

Example 837

N-(3-{1-[4-(1H-INDOL-1-YL)BUTYL]-4-PIPERIDINYL}PHENYL)2-METHYLPROPANAMIDE: Prepared by Procedure AH and
Scheme P using 1-(4-chlorobutyl)-1H-indole and 2-methylN-[3-(4-piperidinyl)phenyl]propanamide: ESMS m/e: 418.3
(M + H).

Example 838

N-[3-(1-{[1-(4-CHLOROPHENYL)-1H-INDOL-5-YL]METHYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE: Prepared by Procedure C and Scheme Q1, with CuBr in place of Cu, using 1-chloro-4-iodobenzene and N-{3-[1-(1H-indol-5-Ylmethyl)-4-piperidinyl]phenyl}-2-methylpropanamide: ...
ESMS m/e: 486.2 (M + H)*.

N-[3-(1-{[1-(3-METHOXYPHENYL)-1H-INDOL-5-YL]METHYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE: Prepared by Procedure C and Scheme Q1, with CuBr in place of Cu, using 1-iodo-3-methoxybenzene and N-{3-[1-(1H-indol-5-ylmethyl)-4-piperidinyl]phenyl}-2-methylpropanamide: ESMS m/e: 482.2 (M + H)⁺.

10 Example 840

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N-(4-{1-[4-(1H-INDOL-1-YL)BUTYL]-4-PIPERIDINYL}PHENYL)BUTANAMIDE: Prepared by Procedure AH and Scheme P using 1-(4-chlorobutyl)-1H-indole and N-[4-(4-piperidinyl)phenyl]butanamide: ESMS m/e: 418.2 (M + H)⁺.

Example 841

N-[3-(1-{[1-(2-METHOXYPHENYL)-1H-INDOL-5-YL]METHYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE: Prepared by Procedure C and Scheme Q1, with CuBr in place of Cu, using 1-iodo-2-methoxybenzene and N-{3-[1-(1H-indol-5-Ylmethyl)-4-piperidinyl]phenyl}-2-methylpropanamide: ESMS m/e: 482.2 (M + H)⁺.

25 **Example 842**

N-[3-(1-{[1-(3-CHLOROPHENYL)-1H-INDOL-5-YL]METHYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE: Prepared by Procedure C and Scheme Q1, with CuBr in place of Cu, using 1-chloro-3-iodobenzene and N-{3-[1-(1H-indol-5-Ylmethyl)-4-piperidinyl]phenyl}-2-methylpropanamide: ESMS m/e: 486.2 (M + H)*.

2-[5-({4-[3-(ISOBUTYRYLAMINO)PHENYL]-1-METHYL PIPERIDINYL METHYL) - 1H - INDOL - 1 - YL] BENZOATE: Prepared by Procedure C and Scheme Q1, with CuBr in place of Cu, 2-iodobenzoate and N-{3-[1-(1H-indol-5using methyl ylmethyl)-4-piperidinyl]phenyl}-2-methylpropanamide: ESMS m/e: 510.2 $(M + H)^+$.

Example 844

 $N-(3-\{1-[3-(1H-INDOL-1-YL)PROPYL]-4-PIPERIDINYL\}PHENYL)-$ 10 Prepared by Procedure AH 2-METHYLPROPANAMIDE: 1-(3-chloropropyl)-1H-indole P using Scheme methyl-N-[3-(4-piperidinyl)phenyl]propanamide: ESMS m/e: $404.2 (M + H)^{+}$.

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Example 845

 $2-METHYL-N-{3-[1-({1-[4-(TRIFLUOROMETHYL)PHENYL]-1H-})}$ INDOL-5-YL}METHYL)-4-PIPERIDINYL]PHENYL}PROPANAMIDE: Prepared by Procedure C and Scheme Q1, with CuBr in place of Cu, using 1-iodo-4-(trifluoromethyl)benzene and $N-\{3-[1-(1H-indol-5-ylmethyl)-4-piperidinyl]phenyl\}-2$ methylpropanamide: ESMS m/e: 520.2 (M + H).

Example 846

 $N-(3-\{1-[(1-[1,1'-BIPHENYL]-2-YL-1H-INDOL-5-YL)METHYL]-$ 25 4-PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by Procedure C and Scheme Q1, with CuBr in place of Cu, 2-iodo-1,1'-biphenyl $N - \{3 - [1 - (1H - indol - 5 - 1]\}\}$ and using ylmethyl)-4-piperidinyl]phenyl}-2-methylpropanamide: 30

ESMS m/e: 528.3 (M + H)⁺.

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2-METHYL-N-[3-(1-{[1-(2-METHYLPHENYL)-1H-INDOL-5-YL]METHYL}-4-PIPERIDINYL)PHENYL]PROPANAMIDE: Prepared by Procedure C and Scheme Q1, with CuBr in place of Cu, using 1-iodo-2-methylbenzene and N-{3-[1-(1H-indol-5-ylmethyl)-4-piperidinyl]phenyl}-2-methylpropanamide:

ESMS m/e: 466.2 (M + H)⁺.

Example 848

2-METHYL-N-[3-(1-{[1-(4-METHYLPHENYL)-1H-INDOL-5-YL]METHYL}-4-PIPERIDINYL)PHENYL]PROPANAMIDE: Prepared by Procedure C and Scheme Q1, with CuBr in place of Cu, using 1-iodo-4-methylbenzene and N-{3-[1-(1H-indol-5-ylmethyl)-4-piperidinyl]phenyl}-2-methylpropanamide:

ESMS m/e: 466.3 (M + H)⁺.

Example 849

N-[3-(1-{[1-(2-CHLOROPHENYL)-1H-INDOL-5-YL]METHYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE: Prepared by Procedure C and Scheme Q1, with CuBr in place of Cu, using 1-chloro-2-iodobenzene and N-{3-[1-(1H-indol-5-Ylmethyl)-4-piperidinyl]phenyl}-2-methylpropanamide: ESMS m/e: 486.2 (M + H)⁺.

25 Example 850

2-METHYL-N-{3-[1-({1-[3-(TRIFLUOROMETHYL) PHENYL]-1H-INDOL-5-YL}METHYL)-4-PIPERIDINYL] PHENYL} PROPANAMIDE:

Prepared by Procedure C and Scheme Q1, with CuBr in place of Cu, using 1-iodo-3-(trifluoromethyl) benzene and N-{3-[1-(1H-indol-5-ylmethyl)-4-piperidinyl] phenyl}-2-methyl propanamide: ¹H NMR (400 MHz, CDCl₃) δ 7.80-6.94 (m, 12H), 6.69 (d, 1H, J = 3.6 Hz), 3.36 (s, 2H), 3.10-3.00 (m, 2H), 2.58-2.42 (m, 2H), 2.16-2.02 (m, 2H),

1.85-1.75 (m, 4H), 1.25 (d, 6H, J = 7.2 Hz); ESMS m/e: 520.2 (M + H)⁺.

Example 851

2-METHYL-N-[3-(1-{[1-(2-NITROPHENYL)-1H-INDOL-5-YL]METHYL}-4-PIPERIDINYL)PHENYL]PROPANAMIDE: Prepared by Procedure C and Scheme Q1, with CuBr in place of Cu, using 1-iodo-2-nitrobenzene and N-{3-[1-(1H-indol-5-Ylmethyl)-4-piperidinyl]phenyl}-2-methylpropanamide:

ESMS m/e: 497.2 (M + H)*.

Example 852

N-[3-(1-{[1-(2-FLUOROPHENYL)-1H-INDOL-5-YL]METHYL}-4PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE: Prepared by
Procedure C and Scheme Q1, with CuBr in place of Cu,
using 1-fluoro-2-iodobenzene and N-{3-[1-(1H-indol-5ylmethyl)-4-piperidinyl]phenyl}-2-methylpropanamide:
ESMS m/e: 470.2 (M + H)⁺.

Example 853

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2-METHYL-N-[3-(1-{[1-(1-NAPHTHYL)-1H-INDOL-5-YL]METHYL}-4-PIPERIDINYL)PHENYL]PROPANAMIDE: Prepared by Procedure C and Scheme Q1, with CuBr in place of Cu, using 1-iodonaphthalene and N-{3-[1-(1H-indol-5-ylmethyl)-4-piperidinyl]phenyl}-2-methylpropanamide: ESMS m/e: 502.2 (M + H)⁺.

Example 854

N-[3-(1-{[1-(2,3-DICHLOROPHENYL)-1H-INDOL-5-YL]METHYL}4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE: Prepared by
Procedure C and Scheme Ql, with CuBr in place of Cu,
using 1,2-dichloro-3-iodobenzene and N-{3-[1-(1H-indol-5-ylmethyl)-4-piperidinyl]phenyl}-2-methylpropanamide: ¹H

 $CDCl_3$) δ 7.68-6.94 (m, 12H), MHz, NMR (400 (d, 1H, J = 2.8 Hz), 3.69 (s, 2H), 3.15-3.02 (m, 2H),2.54-2.42 (m, 2H), 2.18-2.02 (m, 2H), 1.88-1.76 (m, 4H), 1.25 (d, 6H, J = 6.8 Hz); ESMS $m/e: 520.1 (M + H)^{+}$.

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Example 855

 $N-[3-(1-\{[1-(2,3-DiCHLOROPHENYL)-1H-INDOL-7-YL]METHYL\}-$ 4-PIPERIDINYL) PHENYL] -2-METHYLPROPANAMIDE: Prepared by Procedure C and Scheme Q1, with CuBr in place of Cu, using 1,2-dichloro-3-iodobenzene and N-{3-[1-(1H-indol-7-ylmethyl)-4-piperidinyl]phenyl}-2-methylpropanamide: ESMS m/e: 520.2 (M + H)⁺.

Example 856

- $N-[3-(1-\{[1-(3-METHOXYPHENYL)-1H-INDOL-4-YL]METHYL\}-4-$ 15 PIPERIDINYL) PHENYL] - 2 - METHYLPROPANAMIDE: Prepared by Procedure C and Scheme Q1, with CuBr in place of Cu, using 1-iodo-3-methoxybenzene and $\cdot N$ -{3-[1-(1H-indol-4ylmethyl)-4-piperidinyl]phenyl}-2-methylpropanamide:
- ESMS m/e: 482.3 $(M + H)^{+}$. 20

Example 857

 $N-[3-(1-\{[1-(2,3-DICHLOROPHENYL)-1H-INDOL-4-YL]METHYL\}-$ 4-PIPERIDINYL) PHENYL] -2-METHYLPROPANAMIDE: Prepared by Procedure C and Scheme Q1, with CuBr in place of Cu, using 1,2-dichloro-3-iodobenzene and N-{3-[1-(1H-indol-4-ylmethyl)-4-piperidinyl]phenyl}-2-methylpropanamide: ESMS m/e: 520.2 (M + H)⁺.

Example 858 30

> $N-[3-(1-\{[1-(3-CHLOROPHENYL)-1H-INDOL-4-YL]METHYL\}-4-$ PIPERIDINYL) PHENYL] - 2 - METHYLPROPANAMIDE: Procedure C and Scheme Q1, with CuBr in place of Cu,

using 1-chloro-3- iodobenzene and $N-\{3-[1-(1H-indol-4-ylmethyl)-4-piperidinyl]phenyl\}-2-methylpropanamide: ESMS <math>m/e$: 486.2 (M + H)⁺.

5 Example 859

2-METHYL-N-[3-(1-{[1-(3-METHYLPHENYL)-1H-INDOL-4-YL]METHYL}-4-PIPERIDINYL)PHENYL]PROPANAMIDE: Prepared by Procedure C and Scheme Q1, with CuBr in place of Cu, using 1-iodo-3-methylbenzene and N-{3-[1-(1H-indol-4-ylmethyl)-4-piperidinyl]phenyl}-2-methylpropanamide: ESMS m/e: 466.3 (M + H)⁺.

Example 860

N-[3-(1-{[1-(3-METHOXYPHENYL)-1H-INDOL-7-YL]METHYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE: Prepared by Procedure C and Scheme Q1, with CuBr in place of Cu, using 1-iodo-3-methoxybenzene and N-{3-[1-(1H-indol-7-ylmethyl)-4-piperidinyl]phenyl}-2-methylpropanamide: ESMS m/e: 482.3 (M + H)⁺.

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Example 861

2-METHYL-N-{3-[1-({1-[3-(TRIFLUOROMETHYL)PHENYL]-1H-INDOL-4-YL}METHYL)-4-PIPERIDINYL]PHENYL}PROPANAMIDE:

Prepared by Procedure C and Scheme Q1, with CuBr in place of Cu, using 1-iodo-3-(trifluoromethyl)benzene and N-{3-[1-(1H-indol-4-ylmethyl)-4-piperidinyl]phenyl}-2-methylpropanamide: ESMS m/e: 520.2 (M + H)⁺.

Example 862

N-[3-(1-{[1-(3,4-DIMETHYLPHENYL)-1H-INDOL-4-YL]METHYL}4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE: Prepared by
Procedure C and Scheme Q1, with CuBr in place of Cu,
using
N-{3-[1-(1H-indol-4-ylmethyl)-4-

piperidinyl]phenyl}-2- methylpropanamide and 4-iodo-1,2-dimethylbenzene: ESMS m/e: 480.0 (M + H).

Example 863

N-[3-(1-{[1-(3,4-DIFLUOROPHENYL)-1H-INDOL-4-YL]METHYL}4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE: Prepared by
Procedure C and Scheme Q1, with CuBr in place of Cu,
using 1,3-dichloro-5-iodobenzene and N-{3-[1-(1H-indol-4-ylmethyl)-4-piperidinyl]phenyl}-2-methylpropanamide:

ESMS m/e: 520.0 (M + H)⁺.

Example 864

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N-[3-(1-{[1-(3,4-DICHLOROPHENYL)-1H-INDOL-4-YL]METHYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE: Prepared by Procedure C and Scheme Q1, with CuBr in place of Cu, using 1,2-dichloro-4-iodobenzene and N-{3-[1-(1H-indol-4-ylmethyl)-4-piperidinyl]phenyl}-2-methylpropanamide:

ESMS m/e: 520.0 (M + H)⁺.

Example 865

N-[3-(1-{[1-(2-CHLORO-4-FLUOROPHENYL)-1H-INDOL-4-YL]METHYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure C and Scheme Q1, with CuBr in place of Cu, using 2-chloro-4-fluoro-1-iodobenzene and N-{3-[1-(1H-indol-4-ylmethyl)-4-piperidinyl]phenyl}-2-methylpropanamide: ESMS m/e: 504.0 (M + H)⁺.

Example 866

N-[3-(1-{[1-(2,4-DIFLUOROPHENYL)-1H-INDOL-4-YL]METHYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE: Prepared by Procedure C and Scheme Q1, with CuBr in place of Cu, using 2,4-difluoro-1-iodobenzene and N-{3-[1-(1H-indol-

4-ylmethyl)-4- piperidinyl]phenyl $}-2-$ methylpropanamide: ESMS m/e: 488.0 (M + H) $^+$.

Example 867

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2-METHYL-N-[3-(1-{[1-(3-PYRIDINYL)-1H-INDOL-7-YL]METHYL}-4-PIPERIDINYL)PHENYL]PROPANAMIDE: Prepared by Procedure C and Scheme Q1, with CuBr in place of Cu, using 3-iodopyridine and N-{3-[1-(1H-indol-7-ylmethyl)-4-piperidinyl]phenyl}-2-methylpropanamide: ESMS m/e: 453.1 (M + H)⁺.

Example 868

N-{3-[1-(1H-INDOL-6-YLMETHYL)-4-PIPERIDINYL] PHENYL}-2-METHYLPROPANAMIDE: Prepared by Procedure F and Scheme R using 1H-indole-6-carbaldehyde and 2-methyl-N-[3-(4piperidinyl)phenyl]propanamide: ESMS m/e: 376.2 (M + H)*.

Example 869

2-METHYL-N-[3-(1-{[1-(4-PYRIDINYL)-1H-INDOL-4-YL]METHYL}-4-PIPERIDINYL)PHENYL]PROPANAMIDE: Prepared by Procedure C and Scheme Q1, with CuBr in place of Cu, using 4-iodopyridine and N-{3-[1-(1H-indol-4-ylmethyl)-4-piperidinyl]phenyl}-2-methylpropanamide: ESMS m/e: 453.2 (M + H)⁺.

Example 870

2-METHYL-N-[3-(1-{[1-(2-PYRIDINYL)-1H-INDOL-4-YL]METHYL}-4-PIPERIDINYL)PHENYL]PROPANAMIDE: Prepared by Procedure C and Scheme Q1, with CuBr in place of Cu, using 2-iodopyridine and N-{3-[1-(1H-indol-4-ylmethyl)-4-piperidinyl]phenyl}-2-methylpropanamide: ESMS m/e: 453.2 (M + H)⁺.

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 $N-[3-(1-\{[1-(2-FLUOROPHENYL)-1H-INDOL-4-YL]METHYL\}-4-PIPERIDINYL)$ PHENYL]-2-METHYLPROPANAMIDE: Prepared by Procedure C and Scheme Q1, with CuBr in place of Cu, using 1-fluoro-2-iodobenzene and $N-\{3-[1-(1H-indol-4-ylmethyl)-4-piperidinyl]$ phenyl $\}-2$ -methylpropanamide: ESMS m/e: 470.1 (M + H) $^+$.

Example 872

N-[3-(1-{[1-(4-CHLOROPHENYL)-1H-INDOL-4-YL]METHYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE: Prepared by Procedure C and Scheme Q1, with CuBr in place of Cu, using 1-chloro-4-iodobenzene and N-{3-[1-(1H-indol-4-ylmethyl)-4-piperidinyl]phenyl}-2-methylpropanamide:

ESMS m/e: 486.1 (M + H)⁺.

Example 873

2-METHYL-N-[3-(1-{[1-(3-PYRIDINYL)-1H-INDOL-4-YL]METHYL}-4-PIPERIDINYL)PHENYL]PROPANAMIDE: Prepared by Procedure C and Scheme Q1, with CuBr in place of Cu, using 3-iodopyridine and N-{3-[1-(1H-indol-4-ylmethyl)-4-piperidinyl]phenyl}-2-methylpropanamide: ESMS m/e: 453.2 (M + H)⁺.

Example 874

N-[3-(1-{[1-(2,3-DIMETHYLPHENYL)-1H-INDOL-4-YL]METHYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE: Prepared by Procedure C and Scheme Q1, with CuBr in place of Cu, using 1-iodo-2,3-dimethylbenzene and N-{3-[1-(1H-indol-4-ylmethyl)-4-piperidinyl]phenyl}-2-methylpropanamide: ESMS m/e: 480.1 (M + H)⁺.

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N-[3-(1-{[1-(3-FLUOROPHENYL)-1H-INDOL-4-YL]METHYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE: Prepared by Procedure C and Scheme Q1, with CuBr in place of Cu, using 1-fluoro-3-iodobenzene and N-{3-[1-(1H-indol-4-ylmethyl)-4-piperidinyl]phenyl}-2-methylpropanamide: ESMS m/e: 470.1 (M + H)⁺.

Example 876

2-METHYL-N-{3-[1-({1-[2-(TRIFLUOROMETHYL)PHENYL]-1H-INDOL-4-YL}METHYL)-4-PIPERIDINYL]PHENYL}PROPANAMIDE:

Prepared by Procedure C and Scheme Q1, with CuBr in place of Cu, using 1-iodo-2-(trifluoromethyl)benzene and N-{3-[1-(1H-indol-4-ylmethyl)-4-piperidinyl]phenyl}-2-methylpropanamide: ESMS m/e: 520.1 (M + H)⁺.

Example 877

N-[3-(1-{[1-(2-CHLOROPHENYL)-1H-INDOL-4-YL]METHYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE: Prepared by Procedure C and Scheme Q1, with CuBr in place of Cu, using 1-chloro-2-iodobenzene and N-{3-[1-(1H-indol-4-Ylmethyl)-4-piperidinyl]phenyl}-2-methylpropanamide: ESMS m/e: 486.1 (M + H).

25 Example 878

N-[3-(1-{[1-(2,3-DIMETHYLPHENYL)-1H-INDOL-7-YL]METHYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE: Prepared by Procedure C and Scheme Q1, with CuBr in place of Cu, using 1-iodo-2,3-dimethylbenzene and N-{3-[1-(1H-indol-7-ylmethyl)-4-piperidinyl]phenyl}-2-methylpropanamide: ESMS m/e: 480.0 (M + H)⁺.

2-METHYL-N-[3-(1-{5-0x0-5-

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(TRIFLUOROMETHYL) PHENYL] PENTYL}-4-

PIPERIDINYL) PHENYL] PROPANAMIDE: Prepared by Procedure K and Scheme E using 5-chloro-1-[4-(trifluoromethyl) phenyl] -1-pentanone and 2-methyl-N-[3-(4-piperidinyl) phenyl] propanamide: ESMS m/e: 475.1 (M + H)⁺.

$N-(3-\{1-[5-(4-FLUOROPHENYL)-5-OXOPENTYL]-4-$

- PIPERIDINYL PHENYL) 2-METHYLPROPANAMIDE: Prepared by Procedure K and Scheme E using 5-chloro-1-(4-fluorophenyl) 1-pentanone and 2-methyl-N-[3-(4-piperidinyl) phenyl] propanamide: ESMS m/e: 425.2 (M + H)⁺.
- N-(3-{1-[5-(3-FLUOROPHENYL)-5-OXOPENTYL]-4PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by
 Procedure K and Scheme E using 5-chloro-1-(3fluorophenyl)-1-pentanone and 2-methyl-N-[3-(4piperidinyl)phenyl]propanamide: ESMS m/e: 425.2 (M + H)⁺.
- 20 $N-(3-\{1-[5-(3-CHLOROPHENYL)-5-OXOPENTYL]-4-$ PIPERIDINYL } PHENYL) - 2 - METHYLPROPANAMIDE: Prepared by 5-chloro-1-(3and Scheme Ε using Procedure K 2-methyl-N-[3-(4and chlorophenyl) -1-pentanone piperidinyl)phenyl]propanamide: ESMS m/e: 441.1 (M + H). 25
- N-(3-{1-[5-(4-CHLOROPHENYL)-5-OXOPENTYL]-4PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by
 Procedure K and Scheme E using 5-chloro-1-(430 chlorophenyl)-1-pentanone and 2-methyl-N-[3-(4piperidinyl)phenyl]propanamide: ESMS m/e: 441.1 (M + H)*.

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2-METHYL-N-{3-[1-(3-OXO-3-PHENYLPROPYL)-4-PIPERIDINYL]PHENYL}PROPANAMIDE: Prepared by Procedure K and Scheme E using K₂CO₃ instead of Na₂CO₃ and NaI instead of KI and 3-chloro-1-phenyl-1-propanone and 2-methyl-N-[3-(4-piperidinyl)phenyl]propanamide: ESMS m/e: 379.3 (M+H)⁺.

Example 880

 $N-(3-\{1-[7-(2-FLUOROPHENYL)-7-OXOHEPTYL]-4-$ 10 PIPERIDINYL}PHENYL) -2-METHYLPROPANAMIDE: Prepared Procedure K and Scheme E using K2CO3 instead of Na2CO3 and instead of KI and 7-chloro-1-(2-fluorophenyl)-1-2-methyl-N-[3-(4heptanone and piperidinyl)phenyl]propanamide: 1H NMR (400 MHz, CDCl₃), 15 δ 8.17 (s, br, 1H), 8.06-6.88 (m, 8H), 3.08-2.94 (m, 4H), 2.62-2.48 (m, 1H), 2.48-2.38 (m, 1H), 2.38-2.15 2H), 2.02-1.92 (m, 2H), 1.84-1.77 (m, 4H), 1.77-1.66 (m, 2H), 1.62-1.46 (m, 2H), 1.46-1.29 (M, 4H), 1.21 (d, 6H, J = 6.8 Hz); ESMS m/e: 453.2 (M + H)⁺. 20

Example 881

 $N-(3-\{1-[5-(2-FLUOROPHENYL)-5-OXOPENTYL]-4-PIPERIDINYL\}PHENYL)-2-METHYLPROPANAMIDE: Prepared by Procedure K and Scheme E using <math>K_2CO_3$ instead of Na_2CO_3 and NaI instead of KI and 5-chloro-1-(2-fluorophenyl)-1-pentanone and <math>2-methyl-N-[3-(4-piperidinyl)phenyl] propanamide: ESMS m/e: 425.2 (M + H) $^+$.

30 Example 882

N-(3-{1-[6-(3-FLUOROPHENYL).-6-OXOHEXYL].4PIPERIDINYL}PHENYL).2-METHYLPROPANAMIDE: Prepared by
Procedure K and Scheme E using K2CO3 instead of Na2CO3 and

NaI instead of KI and 6- chloro-1-(3-fluorophenyl)-1-hexanone and 2-methyl-N-[3-(4-piperidinyl)phenyl]propanamide: ESMS m/e: 439.2 (M + H) $^+$.

Example 883

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 $N-(3-\{1-[6-(2-FLUOROPHENYL)-6-OXOHEXYL]-4-PIPERIDINYL\}PHENYL)-2-METHYLPROPANAMIDE: Prepared by Procedure K and Scheme E using <math>K_2CO_3$ instead of Na_2CO_3 and NaI instead of KI and 6-chloro-1-(2-fluorophenyl)-1-hexanone and <math>2-methyl-N-[3-(4-piperidinyl)phenyl] propanamide: ESMS m/e: 439.2 (M + H) $^+$.

Example 884

N-(3-{1-[7-(4-FLUOROPHENYL)-7-OXOHEPTYL]-4
PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by Procedure K and Scheme E using K₂CO₃ instead of Na₂CO₃ and NaI instead of KI and 7-chloro-1-(4-fluorophenyl)-1-heptanone and 2-methyl-N-[3-(4-piperidinyl)phenyl]propanamide: ESMS m/e: 453.2 (M + H)⁺.

Example 885

 $N-(3-\{1-[6-(4-CHLOROPHENYL)-6-OXOHEXYL]-4-PIPERIDINYL\}PHENYL)-2-METHYLPROPANAMIDE: Prepared by Procedure K and Scheme E using <math>K_2CO_3$ instead of Na_2CO_3 and NaI instead of KI and 6-chloro-1-(4-chlorophenyl)-1-hexanone and <math>2-methyl-N-[3-(4-piperidinyl)phenyl] propanamide: ESMS m/e: 455.1 (M + H) $^+$.

Example 886

N-(3-{1-[7-(4-CHLOROPHENYL)-7-OXOHEPTYL]-4PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by
Procedure K and Scheme E using K₂CO₃ instead of Na₂CO₃ and
NaI instead of KI and 7-chloro-1-(4-chlorophenyl)-1-

[3 - (4 heptanone and 2-methyl-Npiperidinyl)phenyl]propanamide: ESMS m/e: 469.1 (M + H).

Example 887

 $N-(3-\{1-[6-(4-FLUOROPHENYL)-6-OXOHEXYL]-4-$ 5 PIPERIDINYL}PHENYL) - 2 - METHYLPROPANAMIDE: Prepared Procedure K and Scheme E using K_2CO_3 instead of Na_2CO_3 and and 6-chloro-1-(4-fluorophenyl)-1instead of KI 2-methyl-N-[3-(4and hexanone piperidinyl)phenyl]propanamide: ESMS m/e: 439.1 (M + H)⁺.

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Example 888

 $N-(3-\{1-[6-(3-ACETYLPHENOXY)-6-(2-FLUOROPHENYL) HEXYL]-4-$ PIPERIDINYL}PHENYL) -2-METHYLPROPANAMIDE: Prepared by AN using Α and Scheme Procedure hydroxyphenyl) ethanone and $N-(3-\{1-[6-(2-fluorophenyl)-$ 6-hydroxyhexyl]-4-piperidinyl}phenyl)-2methylpropanamide: ESMS m/e: 559.5 (M + H) $^{+}$.

Example 889 20

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 $N-(3-\{1-[6-(2-FLUOROPHENOXY)-6-(2-FLUOROPHENYL)HEXYL]-4-$ PIPERIDINYL PHENYL) - 2-METHYLPROPANAMIDE: Prepared by Procedure A and Scheme AN using 2-fluorophenol and N-(3-{1-[6-(2-fluorophenyl)-6-hydroxyhexyl]-4piperidinyl}phenyl)-2-methylpropanamide: ESMS m/e: 535.1 $(M + H)^{+}$.

Example 890

 $N-(3-\{1-[6-(4-FLUOROPHENOXY)-6-(2-FLUOROPHENYL)HEXYL]-4-$ PIPERIDINYL}PHENYL) - 2-METHYLPROPANAMIDE: 30 Procedure A and Scheme AN using 4-fluorophenol and N-(3-{1-[6-(2-fluorophenyl)-6-hydroxyhexyl]-4piperidinyl}phenyl)-2-methylpropanamide: 1H NMR (400 MHz, CDCl₃), HCl salt δ 7.72- 6.72 (m, 12H), 5.42-5.34 (m, 1H), 3.68-3.58 (m, br, 2H), 3.02-2.92 (m, 2H), 2.80-2.46 (m, 6H), 2.05-1.78 (m, 6H), 1.68-1.56 (m, 1H), 1.56-1.38 (m, 3H), 1.25 (d, 6H, J = 6.8 Hz); ESMS m/e: 535.1 (M + H)⁺.

Example 891

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N-(3-{1-[6-(2-FLUOROPHENYL)-6-(2-METHOXYPHENOXY) HEXYL]-4-PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by
Procedure A and Scheme AN using 2-methoxyphenol and N-(3-{1-[6-(2-fluorophenyl)-6-hydroxyhexyl]-4-piperidinyl}phenyl)-2-methylpropanamide: ESMS m/e: 547.0
(M + H)*.

Example 892

N-(3-{1-[6-(2-FLUOROPHENYL)-6-(4-METHOXYPHENOXY) HEXYL]-4-PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by Procedure A and Scheme AN using 4-methoxyphenol and N-(3-{1-[6-(2-fluorophenyl)-6-hydroxyhexyl]-4-piperidinyl}phenyl)-2-methylpropanamide: ESMS m/e: 547.1 (M + H).

Example 893

 $N-(3-\{1-[6-(4-ACETYLPHENOXY)-6-(2-FLUOROPHENYL)HEXYL]-4-PIPERIDINYL\}PHENYL)-2-METHYLPROPANAMIDE: Prepared by Procedure A and Scheme AN using <math>1-(4-hydroxyphenyl)$ ethanone and $N-(3-\{1-[6-(2-fluorophenyl)-6-hydroxyhexyl]-4-piperidinyl\}phenyl)-2-methylpropanamide: ESMS <math>m/e$: 559.2 (M + H) $^+$.

Example 894

N-(3-{1-[6-(3,4-DIMETHOXYPHENOXY)-6-(2-FLUOROPHENYL) HEXYL]-4-PIPERIDINYL}PHENYL)-2**METHYLPROPANAMIDE:** Prepared by Procedure A and Scheme AN using 3,4-dimethoxyphenol and $N-(3-\{1-[6-(2-fluorophenyl)-6-hydroxyhexyl]-4-piperidinyl\}phenyl)-2-methylpropanamide: ESMS <math>m/e$: 577.6 (M + H)⁺.

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Example 895

N-(3-{1-[6-(2-ETHOXYPHENOXY)-6-(2-FLUOROPHENYL) HEXYL]-4-PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by Procedure A and Scheme AN using 2-ethoxyphenol and N-(3-{1-[6-(2-fluorophenyl)-6-hydroxyhexyl]-4-piperidinyl}phenyl)-2-methylpropanamide: ESMS m/e: 561.1 (M + H)⁺.

Example 896

N-(3-{1-[6-(4-BROMOPHENOXY)-6-PHENYLHEXYL]-4PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by
Procedure A and Scheme AN using 4-bromophenol and N-{3[1-(6-hydroxy-6-phenylhexyl)-4-piperidinyl]phenyl}-2methylpropanamide: ESMS m/e: 577.0 (M + H)⁺.

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Example 897

N-(3-{1-[6-(4-FLUOROPHENOXY)-6-(4-FLUOROPHENYL) HEXYL]-4-PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by Procedure A and Scheme AN using 4-fluorophenol and N-(3-{1-[6-(4-fluorophenyl)-6-hydroxyhexyl]-4-piperidinyl}phenyl)-2-methylpropanamide: ¹H NMR (400 MHz, CDCl₃), HCl salt δ 8.22 (s, br, 1H), 7.74-6.70 (m, 12H), 5.05-4.94 (m, 1H), 3.66-3.52 (m, br, 2H), 3.02-2.83 (m, br, 2H), 2.81-2.58 (m, br, 4H), 2.58-2.36 (m, br, 2H), 2.02-1.66 (m, br, 6H), 1.66-1.46 (m, br, 1H), 1.46-1.35 (m, br, 3H), 1.26 (d, 6H, J = 6.0 Hz); ESMS m/e: 535.1 (M + H)⁺.

N-(3-{1-[6-(4-METHOXYPHENOXY)-6-PHENYLHEXYL]-4PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by
Procedure A and Scheme AN using 4-methoxyphenol and N{3-[1-(6-hydroxy-6-phenylhexyl)-4-piperidinyl]phenyl}-2methylpropanamide: ESMS m/e: 529.6 (M + H)*.

Example 899

N-(3-{1-[6-(4-CHLOROPHENOXY)-6-(4-CHLOROPHENYL)HEXYL]-4-PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by Procedure A and Scheme AN using 4-chlorophenol and N-(3-{1-[6-(4-chlorophenyl)-6-hydroxyhexyl]-4-piperidinyl}phenyl)-2-methylpropanamide: ESMS m/e: 566.9 (M + H).

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Example 900

N-(3-{1-[6-(4-BROMOPHENOXY)-6-(4-FLUOROPHENYL) HEXYL]-4PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by
Procedure A and Scheme AN using 4-bromophenol and N-(3{1-[6-(4-fluorophenyl)-6-hydroxyhexyl]-4piperidinyl}phenyl)-2-methylpropanamide: ESMS m/e: 595.0
(M + H)*.

Example 901

N-(3-{1-[6-(4-CHLOROPHENOXY)-6-(4-FLUOROPHENYL) HEXYL]-4-PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by Procedure A and Scheme AN using 4-chlorophenol and N-(3-{1-[6-(4-fluorophenyl)-6-hydroxyhexyl]-4-piperidinyl}phenyl)-2-methylpropanamide: ¹H NMR (400 MHz, CDCl₃), HCl salt δ 7.93 (s, 1H), 7.72-6.68 (m, 12H), 5.06-4.98 (m, 1H), 3.66-3.50 (m, br, 2H), 3.02-2.82 (m, br, 2H), 2.80-2.57 (m, br, 4H), 2.57-2.38 (m, br, 2H), 2.02-1.76 (m, br, 6H), 1.64-1.48 (m, br, 1H), 1.48-1.36

(m, br, 3H), 1.25 (d, 6H, J = 6.8 Hz); Anal. Calc. for $C_{33}H_{41}Cl_2FN_2O_2\cdot 0.5EtOAc$: C, 66.55; H, 7.18; N, 4.43; Found: C, 66.35; H, 6.86; N, 4.46. ESMS m/e: 550.8 (M + H)⁺.

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Example 902

N-(3-{1-[6-(4-CHLOROPHENYL)-6-(4-FLUOROPHENOXY) HEXYL]-4-PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by Procedure A and Scheme AN using 4-fluorophenol and N-(3-{1-[6-(4-chlorophenyl)-6-hydroxyhexyl]-4-piperidinyl}phenyl)-2-methylpropanamide: ¹H NMR (400 MHz, CDCl₃), HCl salt δ 8.22 (s, br, 1H), 7.74-6.68 (m, 12H), 5.04-4.92 (m, 1H), 3.66-3.50 (m, br, 2H), 3.00-2.82 (br, 2H), 2.80-2.58 (m, br, 4H), 2.58-2.40 (m, br, 2H), 2.00-1.68 (m, br, 6H), 1.66-1.46 (m, br, 1H), 1.46-1.36 (br, 3H), 1.25 (d, 6H, J = 7.2 Hz); ESMS m/e: 551.1 (M + H)⁺.

Example 903

N-(3-{1-[6-(3-ACETYLPHENOXY)-6-PHENYLHEXYL]-4PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by
Procedure A and Scheme AN using 1-(3hydroxyphenyl)ethanone and N-{3-[1-(6-hydroxy-6phenylhexyl)-4-piperidinyl]phenyl}-2-methylpropanamide:
ESMS m/e: 541.2 (M + H).

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Example 904

 $N-(3-\{1-[6-(4-CHLOROPHENOXY)-6-PHENYLHEXYL]-4-PIPERIDINYL\}PHENYL)-2-METHYLPROPANAMIDE: Prepared by Procedure A and Scheme AN using 4-chlorophenol and <math>N-\{3-1-(6-hydroxy-6-phenylhexyl)-4-piperidinyl]phenyl\}-2-methylpropanamide: <math>^1H$ NMR (400 MHz, CDCl₃), HCl salt δ 8.28 (s, 1H), 7.78-6.70 (m, 13H), 5.08-4.98 (m, 1H), 3.64-3.46 (m, br, 2H), 3.02-2.82 (br, 2H), 2.82-2.56 (m,

br, 4H), 2.56-2.34 (m, br, 2H), 2.05-1.75 (m, br, 6H), 1.64-1.48 (m, br, 1H), 1.48-1.34 (br, 3H), 1.25 (d, 6H, J = 6.8 Hz); ESMS m/e: 533.1 (M + H)⁺.

Example 905

N-(3-{1-[6-(4-BROMOPHENOXY)-6-(4-CHLOROPHENYL) HEXYL]-4-PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by Procedure A and Scheme AN using 4-bromophenol and N-(3-{1-[6-(4-chlorophenyl)-6-hydroxyhexyl]-4-piperidinyl}phenyl)-2-methylpropanamide: ESMS m/e: 611.0

Example 906

 $(M + H)^{+}$

N-(3-{1-[6-(4-CHLOROPHENYL)-6-(4-METHOXYPHENOXY) HEXYL]-4-PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by Procedure A and Scheme AN using 4-methoxyphenol and N-(3-{1-[6-(4-chlorophenyl)-6-hydroxyhexyl]-4-piperidinyl}phenyl)-2-methylpropanamide: ESMS m/e: 563.1 (M + H)⁺.

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Example 907

N-(3-{1-[6-(4-FLUOROPHENYL)-6-(4-METHOXYPHENOXY) HEXYL]-4-PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by Procedure A and Scheme AN using 4-methoxyphenol and N-(3-{1-[6-(4-fluorophenyl)-6-hydroxyhexyl]-4-piperidinyl}phenyl)-2-methylpropanamide: ¹H NMR (400 MHz, CDCl₃), HCl salt δ 8.11 (s, 1H), 7.65-6.84 (m, 12H), 5.21-5.10 (m, 1H), 3.66-3.56 (m, br, 2H), 3.02-2.82 (br, 2H), 2.82-2.56 (m, br, 4H), 2.54 (s, 3H), 2.53-2.32 (m, br, 2H), 2.02-1.70 (m, br, 6H), 1.64-1.48 (m, br, 1H), 1.48-1.34 (br, 3H), 1.25 (d, 6H, J = 6.8 Hz); ESMS m/e: 547.1 (M + H).

 $N-(3-\{1-[6-(3-ACETYLPHENOXY)-6-(4-FLUOROPHENYL) HEXYL\}-4-PIPERIDINYL\}$ PHENYL) -2-METHYLPROPANAMIDE: Prepared by Procedure A and Scheme AN using 1-(3-hydroxyphenyl) ethanone and $N-(3-\{1-[6-(4-fluorophenyl)-6-hydroxyhexyl]-4-piperidinyl\}$ phenyl) -2-methylpropanamide: ESMS m/e: 559.1 (M + H)⁺.

Example 909

N-(3-{1-[6-(4-FLUOROPHENOXY)-6-PHENYLHEXYL]-4-PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by Procedure A and Scheme AN using 4-fluorophenol and N-{3-[1-(6-hydroxy-6-phenylhexyl)-4-piperidinyl]phenyl}-2-methylpropanamide: ¹H NMR (400 MHz, CDCl₃), HCl salt δ 8.05 (s, br, 1H), 7.72-6.70 (m, 13H), 5.06-4.96 (m, 1H), 3.66-3.51 (m, 2H), 3.01-2.82 (m, br, 2H), 2.82-2.57 (m, br, 4H), 2.57-2.34 (m, br, 2H), 2.05-1.78 (m, br; 6H), 1.64-1.52 (m, br, 1H), 1.52-1.16 (m, br, 3H), 1.25 (d, 6H, J = 7.2 Hz); ESMS m/e: 517.0 (M + H)⁺.

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Example 910

 $N-(3-\{1-[6-(2-ACETYLPHENOXY)-6-(2-FLUOROPHENYL) HEXYL]-4-PIPERIDINYL\}$ PHENYL)-2-METHYLPROPANAMIDE: Prepared by Procedure A and Scheme AN using 1-(2-hydroxyphenyl)ethanone and $N-(3-\{1-[6-(2-fluorophenyl)-6-hydroxyhexyl]-4-piperidinyl\}$ phenyl)-2-methylpropanamide: ESMS m/e: 559.0 (M + H) $^+$.

Example 911

N-[3-(1-{6-(4-FLUOROPHENYL)-6-[2-FLUORO-5-(TRIFLUOROMETHYL)PHENOXY]HEXYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE: Prepared by Procedure A and Scheme AN using 2-fluoro-5-(trifluoromethyl)phenol and N-(3-{1-

[6-(4-fluorophenyl)-6- hydroxyhexyl]-4-piperidinyl}phenyl)-2-methylpropanamide: 1 H NMR (400 MHz, CDCl₃), HCl salt δ 8.23 (s, br, 1H), 7.74-6.88 (m, 11H), 5.20-5.12 (m, 1H), 3.68-3.52 (m, br, 2H), 3.02-2.82 (m, br, 2H), 2.82-2.60 (m, 4H), 2.58-2.38 (m, br, 2H), 2.12-2.02 (m, br, 1H), 2.02-1.80 (m, br, 5H), 1.68-1.52 (m, br, 1H), 1.52-1.36 (br, 3H), 1.25 (d, 6H, J = 7.2 Hz); ESMS m/e: 603.3 (M + H)⁺.

10 Example 912

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 $N-(3-\{1-[6-(3-ACETYLPHENOXY)-6-(4-CHLOROPHENYL)HEXYL]-4-$ Prepared by PIPERIDINYL } PHENYL) - 2 - METHYLPROPANAMIDE: using 1-(3-Procedure Α and Scheme ΑN hydroxyphenyl) ethanone and $N-(3-\{1-[6-(4-chlorophenyl)-$ 6-hydroxyhexyl]-4-piperidinyl}phenyl)-2-15 methylpropanamide: 1H NMR (400 MHz, CDCl $_3$), HCl salt δ 8.41 (s, 1H), 7.72-6.84 (m, 12H), 5.18-5.10 (m, 1H), 3.62-3.50 (m, br, 2H), 3.00-2.92 (m, 2H), 2.90-2.58 (m, 4H), 2.54 (s, 3H), 2.50-2.12 (m, 2H), 2.02-1.70 (m, br, 6H), 1.64-1.50 (m, br, 1H), 1.50-1.14 (m, br, 3H), 1.25 20 (d, 6H, J = 6.8 Hz); ESMS $m/e: 575.3 \text{ (M + H)}^+$.

Example 913

 $N-[3-(1-\{6-(2-FLUOROPHENYL)-6-[2-FLUORO-5-$

25 (TRIFLUOROMETHYL) PHENOXY] HEXYL \} - 4 - PIPERIDINYL) PHENYL \] - 2 METHYLPROPANAMIDE: Prepared by Procedure A and Scheme
AN using 2-fluoro-5-(trifluoromethyl) phenol and N-(3-{1[6-(2-fluorophenyl)-6-hydroxyhexyl]-4piperidinyl \} phenyl) - 2 - methylpropanamide: \frac{1}{1} \text{NMR} (400 MHz,

30 CDCl₃), HCl salt δ 8.35 (s, 1H), 7.68-6.82 (m, 11H),
5.58-5.48 (m, 1H), 3.64-3.50 (m, 2H), 3.01-2.94 (m, br,
2H), 2.92-2.54 (m, 4H), 2.48-2.32 (m, br, 2H), 2.20-2.04
(m, 1H), 2.01-1.80 (m, 5H), 1.70-1.54 (m, 1H), 1.54-1.36

(m, 3H), 1.25 (d, 6H, J = 7.2 Hz). Anal. Calc. for $C_{34}H_{40}ClF_5N_2O_2$ 0.6MeOH: C, 63.12; H, 6.49; N, 4.25; Found: C, 63.38; H, 6.61; N, 3.95. ESMS m/e: 603.3 (M + H).

Example 914

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N-[3-(1-{6-(4-CHLOROPHENYL)-6-[2-FLUORO-5-(TRIFLUOROMETHYL) PHENOXY] HEXYL}-4-PIPERIDINYL) PHENYL]-2-METHYLPROPANAMIDE: Prepared by Procedure A and Scheme AN using 2-fluoro-5-(trifluoromethyl) phenol and N-(3-{1-[6-(4-chlorophenyl)-6-hydroxyhexyl]-4piperidinyl}phenyl)-2-methylpropanamide: ESMS m/e: 619.2 (M + H)⁺.

Example 915

- N-[3-(1-{6-(3-FLUOROPHENYL)-6-[2-FLUORO-5-(TRIFLUOROMETHYL) PHENOXY] HEXYL}-4-PIPERIDINYL) PHENYL]-2-METHYLPROPANAMIDE: Prepared by Procedure A and Scheme AN using 2-fluoro-5-(trifluoromethyl) phenol and N-(3-{1-[6-(3-fluorophenyl)-6-hydroxyhexyl]-4piperidinyl}phenyl)-2-methylpropanamide: ESMS m/e: 603.3
 - Example 916

 $(M + H)^{-}$

N-[3-(1-{6-[2-FLUORO-5-(TRIFLUOROMETHYL)PHENOXY]-6-PHENYLHEXYL}-4-PIPERIDINYL)PHENYL]-2-METHYLPROPANAMIDE:

Prepared by Procedure A and Scheme AN using 2-fluoro-5-(trifluoromethyl)phenol and N-{3-[1-(6-hydroxy-6-phenylhexyl)-4-piperidinyl]phenyl}-2-methylpropanamide: ESMS m/e: 585.3 (M + H)*.

Example 917

N-[3-(1-{7-(2-FLUOROPHENYL)-7-[2-FLUORO-5-(TRIFLUOROMETHYL)PHENOXY]HEPTYL}-4-PIPERIDINYL)PHENYL]2-METHYLPROPANAMIDE: Prepared by Procedure A and Scheme

AN using 2-fluoro-5- (trifluoromethyl)phenol and $N-(3-\{1-[7-(2-fluorophenyl)-7-hydroxyheptyl]-4-piperidinyl\}phenyl)-2-methylpropanamide: ESMS <math>m/e$: 617.3 (M + H)⁺.

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Example 918

N-(3-{1-[5-(4-FLUOROPHENYL)-5-(4-METHOXYPHENOXY) PENTYL]-4-PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by Procedure A and Scheme AN using 4-methoxyphenol and N-(3-{1-[5-(4-fluorophenyl)-5-hydroxypentyl]-4-piperidinyl}phenyl)-2-methylpropanamide: ESMS m/e: 533.1 (M + H)⁺.

Example 919

N-(3-{1-[5-(4-BROMOPHENOXY)-5-(4-FLUOROPHENYL) PENTYL]-4-PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by Procedure A and Scheme AN using 4-bromophenol and N-(3-{1-[5-(4-fluorophenyl)-5-hydroxypentyl]-4-piperidinyl}phenyl)-2-methylpropanamide: ¹H NMR (400 MHz, CDCl₃), HCl salt δ 7.94 (s, br, 1H), 7:68-6.64 (m, 12H), 5.12-5.04 (m, 1H), 3.68-3.52 (m, br, 2H), 3.01-2.82 (br, 2H), 2.78-2.58 (m, br, 4H), 2.57-2.38 (m, br, 2H), 2.05-1.80 (m, br, 6H), 1.64-1.38 (m, br, 2H), 1.25 (d, 6H, J = 7.2 Hz); ESMS m/e: 581.0 (M + H)[†].

25 Example 920

 $N-(3-\{1-[5-(4-CHLOROPHENOXY)-5-(4-CHLOROPHENYL) PENTYL]-4-PIPERIDINYL\}PHENYL)-2-METHYLPROPANAMIDE: Prepared by Procedure A and Scheme AN using 4-chlorophenol and <math>N-(3-\{1-[5-(4-chlorophenyl)-5-hydroxypentyl]-4-piperidinyl\}phenyl)-2-methylpropanamide: <math>^1H$ NMR (400 MHz, CDCl₃), HCl salt δ 7.86 (s; br, 1H), 7.62-6.72 (m, 12H), 5.12-5.02 (m, 1H), 3.68-3.52 (m, br, 2H), 3.02-2.82 (br, 2H), 2.82-2.56 (m, br, 4H), 2.56-2.40 (m, br, 2H), 2.06-

1.80 (m, br, 6H), 1.64- 1.40 (m, br, 2H), 1.25 (d, 6H, J = 6.8 Hz). Anal. Calc. for $C_{32}H_{39}Cl_3N_2O_2$ 1.3MeOH: C, 63.25; H, 7.07; N, 4.42; Found: C, 63.41; H, 6.99; N, 4.17. ESMS m/e: 553.0 (M + H)⁺.

Example 921

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N-(3-{1-[5-(4-CHLOROPHENOXY)-5-PHENYLPENTYL]-4-PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by Procedure A and Scheme AN using 4-chlorophenol and N-{3-[1-(5-hydroxy-5-phenylpentyl)-4-piperidinyl]phenyl}-2-methylpropanamide: ¹H NMR (400 MHz, CDCl₃), HCl salt δ 7.72-6.72 (m, 13H), 5.12-5.04 (m, 1H), 3.66-3.52 (m, br, 2H), 3.01-2.83 (br, 2H), 2.68-2.62 (m, br, 2H), 2.62-2.48 (m, br, 4H), 2.04-1.82 (m, br, 6H), 1.62-1.40 (m, br, 2H), 1.25 (d, 6H, J = 7.2 Hz); ESMS m/e: 519.1 (M + H)⁺.

Example 922

N-(3-{1-[5-(3-ACETYLPHENOXY)-5-(4-FLUOROPHENYL) PENTYL]4-PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by
Procedure A and Scheme AN using 1-(3hydroxyphenyl) ethanone and N-(3-{1-[5-(4-fluorophenyl)5-hydroxypentyl]-4-piperidinyl}phenyl)-2methylpropanamide: ESMS m/e: 545.1 (M + H)⁺.

Example 923

N-(3-{1-[5-(4-CHLOROPHENYL)-5-(4-FLUOROPHENOXY)PENTYL]-4-PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by Procedure A and Scheme AN using 4-fluorophenol and N-(3-{1-[5-(4-chlorophenyl)-5-hydroxypentyl]-4-piperidinyl}phenyl)-2-methylpropanamide: 1 H NMR (400 MHz, CDCl₃), HCl salt δ 8.05 (s, br, 1H), 7.74-6.68 (m, 12H), 5.08-4.99 (m, 1H), 3.67-3.56 (m, br, 2H), 3.02-2.82 (br, 2H), 2.80-2.57 (m, br, 4H), 2.57-2.38 (m, br, 2H), 2.05-

1.80 (m, br, 6H), 1.64- 1.40 (m, br, 2H), 1.25 (d, 6H, J = 7.2 Hz). Anal. Calc. for $C_{32}H_{39}Cl_2FN_2O_2$ 1.3EtOAc: C, 64.93; H, 7.24; N, 4.07. Found: C, 65.01; H, 6.97; N, 3.85. ESMS m/e: 537.1 (M + H)⁺.

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Example 924

N-(3-{1-[5-(4-BROMOPHENOXY)-5-PHENYLPENTYL]-4-PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by Procedure A and Scheme AN using 4-bromophenol and N-{3-[1-(5-hydroxy-5-phenylpentyl)-4-piperidinyl]phenyl}-2-methylpropanamide: ¹H NMR (400 MHz, CDCl₃), HCl salt δ 7.74-6.66 (m, 13H), 5.13-5.02 (m, 1H), 3.73-3.51 (m, br, 2H), 3.05-2.83 (br, 2H), 2.83-2.62 (br, 4H), 2.62-2.42 (m, br, 2H), 2.10-1.80 (m, br, 6H), 1.65-1.37 (m, br, 2H), 1.25 (d, 6H, J = 6.8 Hz); ESMS m/e: 562.9 (M + H)⁺.

Example 925

 $N-(3-\{1-[5-(4-CHLOROPHENYL)-5-(4-METHOXYPHENOXY) PENTYL]-$ 4-PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by Procedure A and Scheme AN using 4-methoxyphenol and N-20 (3-{1-[5-(4-chlorophenyl)-5-hydroxypentyl]-4piperidinyl}phenyl)-2-methylpropanamide: 1H NMR (400 MHz, CDCl $_3$), HCl salt δ 8.13 (s, br, 1H), 7.72-6.70 (m, 12H), 5.08-4.97 (m, 1H), 3.72 (s, 3H), 3.66-3.50 (m, br, 2H), 3.03-2.82 (br, 2H), 2.80-2.54 (m, br, 4H), 2.53-2.17 (m, 25 br, 2H), 2.08-1.78 (m, br, 6H), 1.65-1.38 (m, br, 2H), Hz). Anal. Calc. J = 6.8 (d, 6H, 1.25 $C_{33}H_{42}Cl_2N_2O_3$ 0.54 CH_2Cl_2 : C, 63.80; H, 6.88; N, Found: C, 63.84; H, 7.18; N, 4.00. ESMS m/e: 549.1 (M + H) -. 30

Example 926

N-(3-{1-[5-(4-FLUOROPHENOXY)-5-(4-FLUOROPHENYL) PENTYL]4-PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by
Procedure A and Scheme AN using 4-fluorophenol and N-(3{1-[5-(4-fluorophenyl)-5-hydroxypentyl]-4piperidinyl}phenyl)-2-methylpropanamide: ¹H NMR (400 MHz,
CDCl₃), HCl salt δ 7.62-6.70 (m, 12H), 5.10-5.00 (m, 1H),
3.71-3.56 (m, br, 2H), 3.04-2.82 (br, 2H), 2.78-2.64 (m,
br, 3H), 2.64-2.48 (m, br, 3H), 2.05-1.82 (m, br, 6H),
1.62-1.42 (m, br, 2H), 1.25 (d, 6H, J = 6.0 Hz); ESMS
m/e: 521.2 (M + H)*.

Example 927

N-(3-{1-[5-(3-ACETYLPHENOXY)-5-PHENYLPENTYL]-4
PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by

Procedure A and Scheme AN using 1-(3-hydroxyphenyl)ethanone and N-{3-[1-(5-hydroxy-5-phenylpentyl)-4-piperidinyl]phenyl}-2-methylpropanamide:

ESMS m/e: 526.9 (M + H)⁺.

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Example 928

N-(3-{1-[5-(4-METHOXYPHENOXY)-5-PHENYLPENTYL]-4-PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by Procedure A and Scheme AN using 4-methoxyphenol and N-{3-[1-(5-hydroxy-5-phenylpentyl)-4-piperidinyl]phenyl}-2-methylpropanamide: ESMS m/e: 515.6 (M + H).

Example 929

N-[3-(1-{5-[2-FLUORO-5-(TRIFLUOROMETHYL)PHENOXY]-5-[4-30

(TRIFLUOROMETHYL)PHENYL]PENTYL}-4-PIPERIDINYL)PHENYL]-2
METHYLPROPANAMIDE: Prepared by Procedure A and Scheme

AN using 2-fluoro-5-(trifluoromethyl)phenol and N-[3-(1-, {5-hydroxy-5-[4-(trifluoromethyl)phenyl]pentyl}-4-

piperidinyl)phenyl]-2m/e: 639.2 (M + H)⁺. methylpropanamide: ESMS

Example 930

- N-[3-(1-{5-(3-CHLOROPHENYL)-5-[2-FLUORO-5-(TRIFLUOROMETHYL)PHENOXY]PENTYL}-4-PIPERIDINYL)PHENYL]2-METHYLPROPANAMIDE: Prepared by Procedure A and Scheme
 AN using 2-fluoro-5-(trifluoromethyl)phenol and N-(3-{1-[5-(3-chlorophenyl)-5-hydroxypentyl]-4-
- piperidinyl}phenyl)-2-methylpropanamide: ¹H NMR (400 MHz, CDCl₃), HCl salt δ 8.17 (s, br, 1H), 7.75-6.88 (m, 11H), 5.26-5.14 (m, 1H), 3.68-3.56 (m, br, 2H), 3.05-2.90 (br, 2H), 2.90-2.60 (m, br, 4H), 2.56-2.36 (m, br, 2H), 2.18-1.84 (m, br, 6H), 1.70-1.44 (m, br, 2H), 1.25 (d, 6H, J = 7.2 Hz). Anal. Calc. for C₃₃H₃₈Cl₂F₄N₂O₂ 0.9EtOAc: C, 60.98; H, 6.32; N, 3.89; Found: C, 60.99; H, 6.17; N, 3.81. ESMS m/e: 605.2 (M + H)⁺.

Example 931

- N-[3-(1-{5-(2-FLUOROPHENYL)-5-[2-FLUORO-5-(TRIFLUOROMETHYL) PHENOXY] PENTYL}-4-PIPERIDINYL) PHENYL]
 2-METHYLPROPANAMIDE: Prepared by Procedure A and Scheme
 AN using 2-fluoro-5-(trifluoromethyl) phenol and N-(3-{1-[5-(2-fluorophenyl)-5-hydroxypentyl]-4-
- piperidinyl}phenyl)-2-methylpropanamide: ¹H NMR (400 MHz, CDCl₃), HCl salt δ 7.89 (s, br, 1H), 7.72-6.88 (m, 11H), 5.59-5.48 (m, 1H), 3.70-3.48 (br, 2H), 3.05-2.84 (br, 2H), 2.82-2.58 (m, br, 4H), 2.58-2.40 (m, br, 2H), 2.22-1.82 (m, br, 6H), 1.71-1.42 (m, br, 2H), 1.25 (d, 6H, J) = 6.4 Hz); ESMS m/e: 589.3 (M + H)⁺.

Example 932

Example 933

- N-(3-{i-[5-(3-ACETYLPHENOXY)-5-(4-CHLOROPHENYL)PENTYL]4-PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by
 Procedure A and Scheme AN using : 1-(3hydroxyphenyl)ethanone and N-(3-{1-[5-(4-chlorophenyl)5-hydroxypentyl]-4-piperidinyl}phenyl)-2-
- methylpropanamide: ^{1}H NMR (400 MHz, CDCl₃), HCl salt 8 8.05 (s, br, 1H), 7.74-6.88 (m, 12H), 5.27-5.16 (m, 1H), 3.69-3.52 (m, br, 2H), 3.10-2.81 (br, 2H), 2.81-2.57 (m, br, 4H), 2.54 (s, 3H), 2.52-2.40 (m, br, 2H), 2.05-1.80 (m, br, 6H), 1.66-1.42 (m, br, 2H), 1.25 (d, 6H, J = 6.8 Hz); Anal. Calc. for $C_{34}H_{42}Cl_{2}N_{2}O_{3}$ 0. $5CH_{2}Cl_{2}$ 1.0H₂O: C, 63.46; H, 6.91; N, 4.30. Found: C, 63.46; H, 7.09; N, 4.00. ESMS m/e: 561.1 (M + H)⁺.

Example 934

N-[3-(1-{5-(4-CHLOROPHENYL)-5-[2-FLUORO-5-(TRIFLUOROMETHYL) PHENOXY] PENTYL}-4-PIPERIDINYL) PHENYL]2-METHYLPROPANAMIDE: Prepared by Procedure A and Scheme
AN using 2-fluoro-5-(trifluoromethyl) phenol and N-(3-{1-

[5-(4-chlorophenyl)-5- hydroxypentyl]-4-piperidinyl}phenyl)-2-methylpropanamide: 1 H NMR (400 MHz, CDCl₃), HCl salt δ 7.61-6.92 (m, 11H), 5.24-5.16 (m, 1H), 3.70-3.58 (m, 2H), 3.02-2.91 (br, 2H), 2.80-2.64 (m, br, 3H), 2.64-2.50 (m, 3H), 2.18-1.94 (m, br, 6H), 1.62-1.44 (m, br, 2H), 1.25 (d, 6H, J = 7.2 Hz); ESMS m/e: 605.3 (M + H) $^{+}$.

Example 935

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N-[3-(1-{5-(4-FLUOROPHENYL)-5-[2-FLUORO-5-(TRIFLUOROMETHYL) PHENOXY] PENTYL}-4-PIPERIDINYL) PHENYL]2-METHYLPROPANAMIDE: Prepared by Procedure A and Scheme
AN using 2-fluoro-5-(trifluoromethyl) phenol N-(3-{1-[5-(4-fluorophenyl)-5-hydroxypentyl]-4-piperidinyl} phenyl)2-methylpropanamide: ESMS m/e: 589.3 (M + H)⁺.

Example 936

N-(3-{1-[5-(4-BROMOPHENOXY)-5-(4-CHLOROPHENYL) PENTYL]-4-PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by Procedure A and Scheme AN using 4-bromophenol and N-(3-{1-[5-(4-chlorophenyl)-5-hydroxypentyl]-4-piperidinyl}phenyl)-2-methylpropanamide: ESMS m/e: 597.2

(M + H)*.

25 **Example 937**

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N-(3-{1-[5-(4-CHLOROPHENOXY)-5-(4-FLUOROPHENYL) PENTYL]4-PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by
Procedure A and Scheme AN using 4-chlorophenol and N-(3{1-[5-(4-fluorophenyl)-5-hydroxypentyl]-4piperidinyl}phenyl)-2-methylpropanamide: ESMS m/e: 537.3

(M + H)⁺.

Example 938

N-(3-{1-[5-(2-ACETYLPHENOXY)-5-PHENYLPENTYL]-4
PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by

Procedure A and Scheme AN using 1-(2hydroxyphenyl)ethanone and N-{3-[1-(5-hydroxy-5phenylpentyl)-4-piperidinyl]phenyl}-2-methylpropanamide:

ESMS m/e: 527.0 (M + H)⁺.

Example 939

N-(3-{1-[5-(2-ETHOXYPHENOXY)-5-PHENYLPENTYL]-4PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by
Procedure A and Scheme AN using 2-ethoxyphenol and N-{3[1-(5-hydroxy-5-phenylpentyl)-4-piperidinyl]phenyl}-2methylpropanamide: ESMS m/e: 529.2 (M + H)*.

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Example 940

N-(3-{1-[5-(4-FLUOROPHENOXY)-5-PHENYLPENTYL]-4PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by
Procedure A and Scheme AN using 4-fluorophenol and N-{3[1-(5-hydroxy-5-phenylpentyl)-4-piperidinyl]phenyl}-2methylpropanamide: ESMS m/e: 503.2 (M + H)⁺.

Example 941

 $N-(3-\{1-[4-(4-FLUOROPHENYL)-4-OXOBUTYL]-4-$

- PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by Procedure K (KI) and Scheme E (K_2CO_3) using 2-methyl-N-[3-(4-piperidinyl)phenyl]propanamide and 4-chloro-1-(4-fluorophenyl)-1-butanone: ESMS m/e: 411.2 (M + H) $^+$.
- 2-METHYL-N-(3-{1-[3-(1H-PYRROL-3-YL)PROPYL]-4PIPERIDINYL}PHENYL)PROPANAMIDE: Prepared by Procedure K

 (KI) and Scheme E (K₂CO₃) using 2-methyl-N-[3-(4-

piperidinyl)phenyl]propanamide and 3-(3-bromopropyl)-1H-pyrrole: ESMS m/e: 354.2 (M + H) $^{+}$.

Example 943

N-(3-{1-[4-(4-ISOPROPYLPHENYL)-4-OXOBUTYL]-4-PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by Procedure K (KI) and Scheme E (K₂CO₃) using 2-methyl-N-[3-(4-piperidinyl)phenyl]propanamide and 4-chloro-1-(4-isopropylphenyl)-1-butanone: ESMS m/e: 435.2 (M + H)⁺.

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Example 944

N-(3-{1-[4-(4-METHOXYPHENYL)-4-OXOBUTYL]-4PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by
Procedure K (KI) and Scheme E (K₂CO₃) using 2-methyl-N[3-(4-piperidinyl)phenyl]propanamide and 4-chloro-1-(4methoxyphenyl)-1-butanone: ESMS m/e:423.2 (M + H)⁺.

Example 945

 $2-METHYL-N-(3-{1-[4-(4-METHYLPHENYL)-4-OXOBUTYL]-4-}$

PIPERIDINYL PHENYL) PROPANAMIDE: Prepared by Procedure K (KI) and Scheme E (K_2CO_3) using 2-methyl-N-[3-(4-piperidinyl) phenyl] propanamide and 4-chloro-1-(4-methylphenyl)-1-butanone: ESMS m/e: 407.2 (M + H) $^+$.

25 Example 946

N-(3-{1-[4-(4-TERT-BUTYLPHENYL)-4-OXOBUTYL]-4PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by
Procedure K (KI) and Scheme E (K₂CO₃) using 2-methyl-N[3-(4-piperidinyl)phenyl]propanamide and 1-(4-tert-butylphenyl)-4-chloro-1-butanone: ESMS m/e: 449.2 (M + H).

Example 947

N-(3-{1-[4-(4-BROMOPHENYL)-4-OXOBUTYL]-4-PIPERIDINYL}PHENYL)-2-METHYLPROPANAMIDE: Prepared by Procedure K (KI) and Scheme E (K₂CO₃) using 2-methyl-N-[3-(4-piperidinyl)phenyl]propanamide and 1-(4-bromophenyl)-4-chloro-1-butanone: ESMS m/e: 471.3 (M + H)⁺.

Example 948

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 $2-METHYL-N-(3-{1-[4-OXO-4-(2-THIENYL)BUTYL}-4-$

PIPERIDINYL PHENYL) PROPANAMIDE: Prepared by Procedure K

(KI) and Scheme E (K₂CO₃) using 2-methyl-N-[3-(4-piperidinyl) phenyl] propanamide and 4-chloro-1-(2-thienyl)-1-butanone: ESMS m/e: 399.1 (M + H)⁺.

II. Synthetic Methods for Gen ral Structures

The examples described in Section I are merely illustrative of the methods used to synthesize MCH1 antagonists. Further derivatives may be obtained utilizing generalized methods based on the synthetic methods used to synthesize the examples.

It may be necessary to incorporate protection and deprotection strategies for substituents such as amino, amido, carboxylic acid, and hydroxyl groups in the generalized synthetic methods to form further derivatives. Methods for protection and deprotection of such groups are well-known in the art, and may be found, for example in Green, T.W. and Wuts, P.G.M. (1991) Protection Groups in Organic Synthesis, 2nd Edition John Wiley & Sons, New York.

III. Oral Compositions

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As a specific embodiment of an oral composition of a compound of this invention, 100 mg of one of the compounds described herein is formulated with sufficient finely divided lactose to provide a total amount of 580 to 590 mg to fill a size O hard gel capsule.

25 IV. Pharmacological Evaluation of Compounds at Cloned rat MCH1 Receptor

The pharmacological properties of the compounds of the present invention were evaluated at the cloned rat MCH1 receptor using protocols described below.

Host Cells

A broad variety of host cells can be used to study heterologously expressed proteins. These cells include but are not restricted to assorted mammalian lines such as: Cos-7, CHO, LM(tk-), HEK293, Peak rapid 293, etc.; insect cell lines such as: Sf9, Sf21, etc.; amphibian cells such as xenopus oocytes; and others.

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COS 7 cells are grown on 150 mm plates in DMEM with supplements (Dulbecco's modified Eagle Medium with 10% bovine calf serum, 4 mM glutamine, 100 units/ml penicillin/100 Fg/ml streptomycin) at 37°C, 5% CO₂. Stock plates of COS-7 cells are trypsinized and split 1:6 every 3-4 days.

Human embryonic kidney 293 cells are grown on 150 mm plates in DMEM with supplements (10% bovine calf serum, 4 mM glutamine, 100 units/ml penicillin/100 · Fg/ml streptomycin) at 37°C, 5% CO₂. Stock plates of 293 cells are trypsinized and split 1:6 every 3-4 days.

Human embryonic kidney Peak rapid 293 (Peakr293) cells are grown on 150 mm plates in DMEM with supplements (10% fetal bovine serum, 10% L-glutamine, 50 Fg/ml gentamycin) at 37°C , 5% CO_2 . Stock plates of Peak rapid 293 cells are trypsinized and split 1:12 every 3-4 days.

Mouse fibroblast LM(tk-) cells are grown on 150 mm plates in DMEM with supplements (Dulbecco's Modified Eagle Medium with 10% bovine calf serum, 4 mM glutamine, 100 units/ml penicillin/100 Fg/ml streptomycin) at 37°C, 5% CO₂. Stock plates of LM-(tk-) cells are trypsinized and split 1:10 every 3-4 days.

Chinese hamster ovary (CHO) cells were grown on 150 mm plates in HAM=s F-12 medium with supplements (10% bovine calf serum, 4 mM L-glutamine and 100 units/ml penicillin/ 100 Fg/ml streptomycin) at 37°C, 5% CO₂. Stock plates of CHO cells are trypsinized and split 1:8 every 3-4 days.

Mouse embryonic fibroblast NIH-3T3 cells are grown on 150 mm plates in Dulbecco=s Modified Eagle Medium (DMEM) with supplements (10% bovine calf serum, 4 mM glutamine, 100 units/ml penicillin/100 Fg/ml streptomycin) at 37° C, 5% CO₂. Stock plates of NIH-3T3 cells are trypsinized and split 1:15 every 3-4 days.

15 Sf9 and Sf21 cells are grown in monolayers on 150 mm tissue culture dishes in TMN-FH media supplemented with 10% fetal calf serum, at 27° C, no CO_2 . High Five insect cells are grown on 150 mm tissue culture dishes in Excell 400^{TM} medium supplemented with L-Glutamine, also at 27° C, no CO_2 .

In some cases, cell lines that grow as adherent monolayers can be converted to suspension culture to increase cell yield and provide large batches of uniform assay material for routine receptor screening projects.

Transient expression

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DNA encoding proteins to be studied can be transiently expressed in a variety of mammalian, insect, amphibian and other cell lines by several methods including but not restricted to; calcium phosphate-mediated, DEAE-dextran mediated, Liposomal-mediated, viral-mediated, electroporation-mediated and microinjection delivery.

Each of these methods may require optimization of assorted experimental parameters depending on the DNA, cell line, and the type of assay to be subsequently employed.

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A typical protocol for the calcium phosphate method as applied to Peak rapid 293 cells is described as follows:

Adherent cells are harvested approximately twenty-four hours before transfection and replated at a density of . 10 3.5×10^6 cells/dish in a 150 mm tissue culture dish and allowed to incubate over night at 37° C at 5% CO₂. 250 Fl of a mixture of $CaCl_2$ and DNA (15 Fg DNA in 250 mM $CaCl_2$) is added to a 5 ml plastic tube and 500 Fl of 2X HBS (280 mM NaCl, 10 mM KCl, 1.5 mM Na₂HPO₄, 12 mM dextrose, 15 50 mM HEPES) is slowly added with gentle mixing. The mixture is allowed to incubate for 20 minutes at room temperature to allow a DNA precipitate to form. The DNA precipitate mixture is then added to the culture medium in each plate and incubated for 5 hours at 37°C , 5% CO_2 . 20 After the incubation, 5ml of culture medium (DMEM, 10% FBS, 10% L-glut and 50 µg/ml gentamycin) is added to each plate. The cells are then incubated for 24 to 48

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hours at 37° C, 5% CO₂.

A typical protocol for the DEAE-dextran method as applied to Cos-7 cells is described as follows; Cells to be used for transfection are split 24 hours prior to the transfection to provide flasks which are 70-80% confluent at the time of transfection. Briefly, 8 Fg of receptor DNA plus 8 Fg of any additional DNA needed (e.g. G_{α} protein expression vector, reporter construct, antibiotic resistance marker, mock vector, etc.) are

DEAE-dextran plus added to 9 ml of complete DMEM mixture (10 mg/ml in PBS). Cos-7 cells plated into a T225 flask (sub-confluent) are washed once with PBS and the DNA mixture is added to each flask. The cells are allowed to incubate for 30 minutes at 37°C , 5% CO_{2} . Following the incubation, 36 ml of complete DMEM with 80 FM chloroquine is added to each flask and allowed to incubate an additional 3 hours. The medium is then aspirated and 24 ml of complete medium containing 10% DMSO for exactly 2 minutes and then aspirated. The cells are then washed 2 times with PBS and 30 ml of complete DMEM added to each flask. The cells are then allowed to incubate over night. The next cells day the harvested by trypsinization and reseeded as depending upon the type of assay to be performed.

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A typical protocol for liposomal-mediated transfection as applied to CHO cells is described as follows; Cells to be used for transfection are split 24 hours prior to the transfection to provide flasks which are 70-80% confluent at the time of transfection. A total of 10Fg of DNA which may include varying ratios of receptor DNA G_{o} protein needed DNA (e.g. additional any plus antibiotic reporter construct, expression vector, etc.) mock vector, resistance marker, transfect each 75 cm2 flask of cells. Liposomal mediated according the carried out to is transfection manufacturer=s recommendations (LipofectAMINE, GibcoBRL, Bethesda, MD). Transfected cells are harvested 24 hours post transfection and used or reseeded according the requirements of the assay to be employed.

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electroporation method A typical protocol for the applied to Cos-7 cells is described as follows; Cells to be used for transfection are split 24 hours prior to the transfection to provide flasks which are subconfluent at the time of transfection. The cells are harvested by trypsinization resuspended in their growth media and counted. 4 x 10^6 cells are suspended in 300 Fl of DMEM and placed into an electroporation cuvette. 8 Fg of receptor DNA plus 8 Fg of any additional DNA needed (e.g. G_{α} protein expression vector, reporter construct, antibiotic resistance marker, mock vector, added to the cell suspension, the cuvette is placed into a BioRad Gene Pulser and subjected to an electrical pulse (Gene Pulser settings: 0.25 kV voltage, 950 FF capacitance). Following the pulse, 800 Fl of complete is added to each cuvette and the transferred to a sterile tube. Complete medium is added to each tube to bring the final cell concentration to 1 \times 10⁵ cells/100 Fl. The cells are then plated as needed depending upon the type of assay to be performed.

A typical protocol for viral mediated expression of heterologous proteins is described as follows for baculovirus infection of insect Sf9 cells. The coding region of DNA encoding the receptor disclosed herein may be subcloned into pBlueBacIII into existing restriction sites or sites engineered into sequences 5' and 3' to the coding region of the polypeptides. To generate baculovirus, 0.5 Fg of viral DNA (BaculoGold) and 3 Fg of DNA construct encoding a polypeptide may be cotransfected into 2 x 10⁶ Spodoptera frugiperda insect Sf9 cells by the calcium phosphate co-precipitation method, as outlined in by Pharmingen (in "Baculovirus Expression")

and Methods Manual"). Vector System: Procedures are incubated for 5 days at 27°C. The cells then co-transfection plate the supernatant of collected by centrifugation and the recombinant virus plaque purified. The procedure to infect cells with virus, to prepare stocks of virus and to titer the virus stocks are as described in Pharmingen=s manual. Similar principals would in general apply to mammalian cell expression via retro-viruses, Simliki forest virus and double stranded DNA viruses such as adeno-, herpes-, and vacinia-viruses, and the like.

Stable expression

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Heterologous DNA can be stably incorporated into host cells, causing the cell to perpetually express a foreign protein. Methods for the delivery of the DNA into the cell are similar to those described above for transient expression but require the co-transfection of ancillary gene to confer drug resistance on the targeted host cell. The ensuing drug resistance can be exploited to select and maintain cells that have taken up the heterologous DNA. An assortment of resistance genes are available including but not restricted to Neomycin, Kanamycin, and Hygromycin. For the purposes of receptor studies, stable expression of a heterologous receptor in, but not necessarily carried out protein is restricted to, mammalian cells including, CHO, HEK293, LM(tk-), etc.

30 Cell membrane preparation

For binding assays, pellets of transfected cells are suspended in ice-cold buffer (20 mM Tris.HCl, 5 mM EDTA, pH 7.4) and homogenized by sonication for 7 sec. The

centrifuged at 200 x g for lysates are cell 5 min at 4°C. The supernatants are then centrifuged at $40,000 ext{ x g for 20 min at } 4^{\circ}\text{C}$. The resulting pellets are washed once in the homogenization buffer and suspended in binding buffer (see methods for radioligand binding). Protein concentrations are determined by the method of Bradford (1976) using bovine serum albumin as usually are standard. Binding assays immediately, however it is possible to prepare membranes in batch and store frozen in liquid nitrogen for future use.

Radioligand binding assays

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Radioligand binding assays for the rat MCH1 receptor were carried out using plasmid pcDNA3.1-rMCH1-f (ATCC Designation No. PTA-3505). Plasmid Deposit Patent regulatory elements pcDNA3.1-rMCH1-f comprises the necessary for expression of DNA in a mammalian cell operatively linked to DNA encoding the rat MCH1 receptor so as to permit expression thereof. Plasmid pcDNA3.1rMCH1-f was deposited on July 05, 2001, with the American Type Culture Collection (ATCC), 12301 Parklawn 20852, U.S.A. Rockville, Maryland provisions of the Budapest Treaty for the International Recognition of the Deposit of Microorganisms for the Purposes of Patent Procedure and was accorded ATCC Patent Deposit Designation No. PTA-3505.

Binding assays can also be performed as described hereinafter using plasmid pEXJ.HR-TL231 (ATCC Accession No. 203197) Plasmid pEXJ.HR-TL231 encodes the human MCH1 receptor and was deposited on September 17, 1998, with the American Type Culture Collection (ATCC), 12301

Parklawn Drive, Rockville, Maryland 20852, U.S.A. under the provisions of the Budapest Treaty for the International Recognition of the Deposit of Microorganisms for the Purposes of Patent Procedure and was accorded ATCC Accession No. 203197.

Human embryonic kidney Peak rapid 293 cells (Peakr293 cells) were transiently transfected with DNA encoding the MCH1 receptor utilizing the calcium phosphate method and cell membranes were prepared as described above. Binding from Peakr293 membranes with experiments transfected with the rat MCH1 receptor were performed with 0.08 nM [3H]Compound A (the synthesis of Compound A is described in detail below) using an incubation buffer consisting of 50 mM Tris pH 7.4, 10 mM MgCl₂, 0.16 mM PMSF, 1 mM 1,10 phenantroline and 0.2% BSA. Binding was 25°C for 90 minutes. Incubations: were performed at terminated by rapid vacuum filtration over GF/C glass fiber filters, presoaked in 5% PEI using 50 nM Tris pH 7.4 as wash buffer. In all experiments, nonspecific binding is defined using 10 pM Compound A.

Functional assays

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Cells may be screened for the presence of endogenous mammalian receptor using functional assays. Cells with no or a low level of endogenous receptor present may be transfected with the exogenous receptor for use in functional assays.

A wide spectrum of assays can be employed to screen for receptor activation. These range from traditional measurements of phosphatidyl inositol, cAMP, Ca⁺⁺, and

these K⁺, for example; to systems measuring second messengers but which have been modified or adapted to be higher throughput, more generic, and more sensitive; to cell based platforms reporting more resulting receptor general cellular events from activation such as metabolic changes, differentiation, and cell division/proliferation, for example; to high monitor complex organism assays which level physiological or behavioral changes thought to activation including involved receptor with cardiovascular, analgesic, orexigenic, anxiolytic, and sedation effects, for example.

Radioligand Binding Assay Results

The compounds described above were assayed using cloned rat MCH1. The binding affinities of the compounds are shown in Table I.

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Ki (nM) rMCH1 STRUCTURE EXAMPLE No. 3.9 14.2

37 O N 29.1

38 18.2

39 11.8

40 N 50

41 946

42 O N 118

43 O N 12

44) N 11.5

1.6

6.7

_7.1

3.9

3.1

3.8

. 7.1

4.9

22.3

16.6

. 60

6.6

31.4 72

22.3 73

48.6

.11.8 75

44.6 76

25.7 77

22.2 78

19.4 79

EXAMPLE	STRUCTURE	Ki (nM)
		rMCH1

86	N N	20.6
	CI N	14.9
87		
		16.0
89	F N N O= N	3.0 -
90		3.0

	513	
91		2.3
92		8.0
93		4.2
94		2.3
95		5.4
96		15.9

	514	
97	N N N N N N N N N N N N N N N N N N N	27.3
	·	37.9
98	N H O	
99		1.7
100		27.5
101	N N N N N N N N N N N N N N N N N N N	78
102		38.4

103		21.3
104		11.2
105	F F N N N N N N N N N N N N N N N N N N	4.6
106	CI-CI N-CI N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-	7:1
107		1.7
108	HN—CI	5.2

	516	
109	CF ₃	20.9
110	HN-N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-N-	1.8
111	N'N CI	ND -
112	HIN—CI	6.1
113	N H HN O	ND

75.7 119

31.1 120

183.7 121

13.8 CI

-131

135 Br 10.9

137 F F F 25.2

58.3

164

16.3

165

183

4.0

184

105.2

185

186 -

187

Example

Structure

rMCH1 Ki (nM)

438.3

188

191

190

192

193

435.6

648.7

80.5

1.8

CI CI

$$O \longrightarrow CH_3$$

$$\begin{array}{c|c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & \\ & & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\$$

$$H_3C$$
 N
 O
 CH_3
 CH_3

ĊH₃

271 F
$$\sim$$
 CH₃ \sim CH₃ \sim CH₃

275

$$\begin{array}{c|c} & & & & \\ & & & & \\ & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & &$$

276

277

$$\begin{array}{c} \text{H}_{3}\text{C} \xrightarrow{\text{CH}_{3}} \\ \text{N} \\ \text{O} \xrightarrow{\text{F}} \\ \text{F} \end{array}$$

Example

Structure

rMCH-1 Ki (nM)

ral 85.8

285

23.5

16.3

Chiral

Structure rMCH-1 Ki (nM)
303
9.5

Chiral
4.0

305 Chiral 177.2

Chiral 19.

215.0 CH₃

H₃C CH₃

29.0

51.3

Example

Structure

H₃C

rMCH-1 Ki (nM)

Chiral 602.8

183.0 OCH₃

106.9 H₃C

348

Chiral 145.0 Chiral
$$CH_3$$
 CH_3 CH_3 CH_3 CH_3 CH_3

370
$$Chiral$$
 OCH_3
 OCH_3
 OCH_3
 OCH_3

Br Chiral
$$Chiral$$
 $Chiral$ $Chiral$

Cl Chiral 428.5
$$CH_3$$
 CH_3 CH_3 CH_3 CH_3

382 318.8

383 H₃C CH₃ 289.6

324.6

CI

N

O

CH₃

H₃C

Example Structure rMCH1 Ki (nM)

2.4

11.7

$$H_3C$$
 H_3C
 H_3C

H₃C-0 N CH₃

413

262.7

27.0

$$H_3C$$
 H_3C
 H_3C
 H_3C
 H_3C
 H_3C

. 173.0

$$O$$
 H_2N
 O
 H_3C
 H_3C

114.2

425

427 -

$$CH_3$$
 CH_3 CH_3 CH_3 CH_3 CH_3

596 647.4 H₃Ć

431

967.7

432

198.2

433

$$H_3C$$
 H_3C
 H_3C
 H_3C
 H_3C
 H_3C
 H_3C
 H_3C

441
$$O$$
 O
 CH_3
 CH_3

O CH₃

17.2

84.1

CI N CI H₃C CH₃

$$CI$$
 N
 CI
 H_3C
 CH_3

$$CI$$
 N
 O
 H_3C
 CH_3

$$H_3C$$
 O
 CH_3
 H_3C

500

501 -

F CH₃

$$O \longrightarrow CH_3$$

$$H_3C$$
 N
 O
 H_3C
 CH_3

H₃Ć

535 28.1

536 150.4

67.7 H₃C

543 27.6 H₃C N O CH₃

544 16.2

75.5 H₃C

548 125.6

549 0 39.7 N 0

50.3

556

88.3

Example

Structure

rMCH1 Ki (nM)

572

181.5

575 F Chiral 192.6

576 Chiral 74.3

577 Chiral 64.7

98.8 Chiral

Example

Structure

rMCH1 Ki (nM) 131.1

579

580

 Example
 Structure
 rMCH1 Ki (nM)

 592
 F
 Chiral
 185.6

Chiral 185.6

593 Chiral 7.6

Example

MOLSTRUCTURE

rMCH1 Ki (nM)

286.8

604

611 Chiral 65.1

612 Chiral 121.0

619

620

621

Example

Structure

rMCH1 Ki (nM)

23.1

47.8

639 36.3 CH₃

640

CI S N O CH₃

O N O CH₃

641 14.2

H₃C O S N CH₃ CCH₃ -

647 81.6 N CH₃

CI CH₃ 13.4

649 1.7

CH3

97.9

679

680 CH₃ H CH₃ -

681 H₃C_CCH₃ 23.9

H₃C CH₃

683

684

685

7.1

H₃C N CH₃

16.6

H₃C N CH₃

CH₃

F CH₃

716

H₃C N CH₃ CH₃

717

CH₃

4.7

CH₃
CH₃
CH₃

9.2

CH₃

731

732

733

0.9

736

737

1.1

CH₃

N

CH₃

CH₃

H₃C CH₃

744

F F CH₃ 47.1

745

CH₃

CH₃

CH₃

1.4

H₃C N CH₃

747

160.6 CH₃ CH₃

748

H₃C CH₃

749

23.2 N CH₃ CCH₃

8.0

12.4

752

21.7 CH₃ CH₃

753

H₃C CH₃ CCH₃

23.8

9.3

760

92.3

761

H₃C N CH₃

CH₃

CH₃

CH₃

CH₃

Br

764

CH₃

N

CH₃

CH₃

CH₃

CH₃

765

O CH₃

N CH₃

CH₃

CH₃

6.3

O-NO

767

34.8

768

769

12.7

H₃C CH₃

795

796

Example

rMCH1 Ki (nM)

797

815 126.9

CH₃

89.6
CI

CH₃
CH₃

817 HO N O H₃C CH₃

Example Structure rMCH1 Ki (nM)

820

H₃C

N

108.6

694

36.5 824

Example

Structure

rMCH1 Ki (nM) 600.7

825

826

1.0

2.7

848 19.1 N O H₃C CH₃

7

H₃C N H₃C N H₃C N

Example

Structure

rMCH1 Ki (nM)

19.8

888

889

890

168.8

6.5 O CH₃

892

H₃C O CH₃

893

894

898
$$H_3C O H_3C CH_3$$

902
$$CI$$
 N N O H_3C CH_3

12.2

7.6

12.9 913

9.6

932

9.4

933

10.9

934

12.3

H₃C

945
$$H_3C$$

$$H_3C$$

$$H_3C$$

$$H_3C$$

$$H_3C$$

Table 2: Binding affinities (Ki) at the rat MCH1, human Dopamine D2, human Histamine H1 and human Alpha-1a Adrenergic receptors.

	•			
Compound	rMCH1	hD2	hH1	hAlpha-1a
	Ki (nM)	Ki (nM)	Ki (nM)	Ki (nM)
	90	6092	823	49
2	3.9	2839	700	32.1
သ	768	ND	ND	ND
4	357	. ND	ND	ND
5	14.2	1139	1618	9.1
6	274	ND	ND	ND
7	1000	ND	ND	N
8	627	ND	ND	NO
9	69	1430	1733	26.4
10	2.8	862	461	19.4
	197	NO	ND	ND
12	84	771	571	57
13	11.9	551	ND	61
14	167	S	ND	S
15	720	NO	ND	ND.
16	272	ND	N	ND
17	342	NO	ND	ND
18	29.5	782	ND	115
19	506	ND	ND	ND
20	21	470	ND	41.3
21	630	ND	ND	N

Table 2: Binding affinities (Ki) at the rat MCH1, human Dopamine D2, human Histamine H1 and human Alpha-1a Adrenergic receptors.

44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	. 26	25	24	23	22
11.5	12	118	946	50	11.8	18.2	29.1	62	11.5	651	615	160	362	382	654	511	91	192	463 .	67	1036 ,	52
8673	10,428	ND	ND	7451	>50000	>50000	34,993	12,026	9654	NO	N	N	ND .	N	ND	N	• 503	1977		1252	ND	5181
11,092	2560	ND	ND	273	6401	6595	16,734	2454	2000	ND	ND	ND	ND	NO	N	N	ND	NO	ND	NO ;	ND	2277
704	434	ND N	ND	12.3	2937	1592	1087	1489	533	NO	ND	ND	ND	ND	S	N	130	516	N	127	ND	284

Table 2: Binding affinities (Ki) at the rat MCH1, human Dopamine D2, human Histamine H1 and human Alpha-1a Adrenergic receptors.

																	•				
66	65	64	63	62	61	60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45
3.3	17	14.8	22.4	. 12.8	13.6	0.923	12.9	20.1	16.6	22.3	5	4.9	7.1	3.8	3.1	3.9	7.1	6.7	52	187	1.6
132	331	313	766	319	281	52	262	390	41,994	435	162	83	191	244	152	. 1077	471	735	>50000	. NO	42.2
3473	9390	6994	25,307	25,320	969	546	46.9	590	48,658	32.5	1100	283	1320	264	130	304	39.1	6390	36,907	ND	3.4
944	1720	1142	1058	719	310	22.3	49.1	233	3206	55	125	187	221	13.2	33.5	161	140	452	>50000	: . N	18
	3.3 132 3473	17 331 9390 3.3 132 3473	14.8 313 6994 . 17 331 9390 3.3 132 3473	22.4 766 25,307 14.8 313 6994 17 331 9390 3.3 132 3473	12.8 319 25,320 22.4 766 25,307 14.8 313 6994 17 331 9390 3.3 132 3473	13.6 281 969 12.8 319 25,320 22.4 766 25,307 14.8 313 6994 17 331 9390 3.3 132 3473	0.923 52 546 13.6 281 969 12.8 319 25,320 22.4 766 25,307 14.8 313 6994 17 331 9390 3.3 132 3473	12.9 262 46.9 0.923 52 546 13.6 281 969 12.8 319 25,320 22.4 766 25,307 14.8 313 6994 17 331 9390 3.3 132 3473	20.1 390 590 12.9 262 46.9 0.923 52 546 13.6 281 969 12.8 319 25,320 22.4 766 25,307 14.8 313 6994 17 331 9390 3.3 132 3473	16.6 41,994 48,658 20.1 390 590 12.9 262 46.9 0.923 52 546 13.6 281 969 12.8 319 25,320 22.4 766 25,307 14.8 313 6994 17 331 9390 3.3 132 3473	22.3 435 32.5 16.6 41,994 48,658 20.1 390 590 12.9 262 46.9 0.923 52 546 13.6 281 969 12.8 319 25,320 22.4 766 25,307 14.8 313 6994 17 331 9390 3.3 132 3473	5 162 1100 22.3 435 32.5 16.6 41,994 48,658 20.1 390 590 12.9 262 46.9 0.923 52 546 13.6 281 969 12.8 319 25,320 22.4 766 25,307 14.8 313 6994 17 331 9390 3.3 132 3473	4.9 83 283 5 162 1100 22.3 435 32.5 16.6 41,994 48,658 20.1 390 590 12.9 262 46.9 0.923 52 546 13.6 281 969 12.8 319 25,320 22.4 766 25,307 14.8 313 6994 17 331 9390 3.3 132 3473	7.1 191 1320 4.9 83 283 5 162 1100 22.3 435 32.5 16.6 41,994 48,658 20.1 390 590 12.9 262 46.9 0.923 52 546 12.8 319 25,320 22.4 766 25,307 14.8 313 6994 17 331 9390 3.3 132 3473	3.8 244 264 7.1 191 1320 4.9 83 283 5 162 1100 22.3 435 32.5 16.6 41,994 48,658 20.1 390 590 12.9 262 46.9 0.923 52 546 12.8 319 25,320 22.4 766 25,320 14.8 313 6994 17 331 9390 3.3 132 3473	3.1 152 130 3.8 244 264 7.1 191 1320 4.9 83 283 5 162 1100 22.3 435 32.5 16.6 41,994 48,658 20.1 390 590 12.9 262 46.9 0.923 52 546 12.8 319 25,320 14.8 313 6994 17 331 9390 3.3 132 3473	3.9 . 1077 304 3.1 152 130 7.1 191 1320 4.9 83 283 16.6 41,994 48,658 20.1 390 590 12.9 262 46.9 0.923 52 546 12.8 319 25,320 14.8 313 6994 3.3 132 3473	7.1 471 39.1 3.9 1077 304 3.1 152 130 3.8 244 264 7.1 191 1320 4.9 83 283 5 162 1100 22.3 435 32.5 16.6 41,994 48,658 20.1 390 590 12.9 262 46.9 0.923 52 546 12.8 319 25,320 12.8 313 6994 14.8 313 6994 11.7 331 9390	6.7 735 6390 7.1 471 39.1 3.9 1077 304 3.1 152 130 3.8 244 264 7.1 191 1320 4.9 83 283 5 162 1100 22.3 435 32.5 16.6 41,994 48,658 20.1 390 590 12.9 262 46.9 0.923 52 546 12.8 319 25,320 3 22.4 766 25,320 11.8 313 6994 11.7 331 9390 3.3 132 3473	52 >50000 36,907 6.7 735 6390 7.1 471 39.1 3.9 1077 304 3.1 152 130 3.8 244 264 7.1 191 1320 4.9 83 283 5 162 1100 22.3 435 32.5 16.6 41,994 48,658 20.1 390 590 12.9 262 46.9 12.8 319 25,320 3 22.4 766 25,307 14.8 313 6994 17 331 9390 3.3 132 3473	

V. Synthesis of Compound A

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Described below is the synthesis of Compound A. Compound A is the radiolabeled compound that was used in the radioligand binding assays described above.

N-[3-(1,2,3,6-TETRAHYDRO-4-PYRIDINYL) PHENYL] ACETAMIDE:

The reaction of saturated of aqueous Na_2CO_3 solution (25) tert-butyl 4-{[(trifluoromethyl)sulfonyl]oxy}-10 1,2,3,6-tetrahydro-1-pyridine-carboxylate (20 mmol), 3acetamidophenylboronic acid (30 mmol) tetrakisand (1.15)g) palladium (0) triphenylphosphine dimethoxyethane (40 mL) at reflux temperature overnight tert-butyl 4-[3-(acetylamino)phenyl]-3,6-dihydro-15 1(2H)-pyridinecarboxylate. Deprotection of the BOC group using HCl in dioxane followed by basification (pH:11-12) gave the desired product.

20 TERT-BUTYL N-(3-BROMOPROPYL) CARBAMATE: was prepared from 3-bromopropylamine hydrobromide and BOC₂O in the presence of base in dichloromethane.

N-{3-[1-(3-AMINOPROPYL)-1,2,3,6-TETRAHYDRO-4-

PYRIDINYL]PHENYL}ACETAMIDE: The reaction of tert-butyl N-(3-bromopropyl)carbamate and N-[3-(1,2,3,6-tetrahydro-4-pyridinyl)phenyl]acetamide in refluxing dioxane with catalytic Bu₄NI and base as described in Scheme A gave tert-butyl 3-(4-[3-(acetylamino)phenyl]-3,6-dihydro-1(2H)-pyridinyl)propylcarbamate. Deprotection of the BOC group using HCl in dioxane followed by basification (pH 11-12) gave the desired product.

(ACETYLAMINO) PHENYL] -3,6-(45) -3-({[3-(4-[3-METHYL DIHYDRO-1(2H)-PYRIDINYL)PROPYL]AMINO}CARBONYL)-4-(3,4-DIFLUOROPHENYL) -6- (METHOXYMETHYL) -2-OXO-1,2,3,4-Prepared from the TETRAHYDRO-5-PYRIMIDINECARBOXYLATE: 1-(4-nitrophenyl) (6S) - 6 - (3, 4 -5-methyl reaction of 5 difluorophenyl)-4-(methoxymethyl)-2-oxo-3,6-dihydro-1,5(2H)-pyrimidinedicarboxylate PCT (describe Publication No. WO 00/37026, published June 29, 2000) N-{3-[1-(3-aminopropyl)-1,2,3,6-tetrahydro-4pyridinyl]phenyl}acetamide: 1 H NMR δ 8.90 (t, 1 H, J=3.6 10 Hz), 7.75 (s, 1 H), 7.50-7.00 (m, 8 H), 6.68 (s, 1 H), 6.03 (br s, 1 H), 4.67 (s, 2 H), 3.71 (s, 3 H), 3.47 (s, 3 H), 3.38 (ABm, 2 H), 3.16 (m, 2 H), 2.71 (t, 2 H, J =5.4 Hz), 2.56 (m, 4 H), 2.35-1.90 (br, 2 H), 2.17 (s, 3H), 1.82 (p, 2 H, J=7.2 Hz); ESMS, 612.25 (M+H) $^{+}$. 15

TRITIATED METHYL (4S)-3-{[(3-{4-[3-(ACETYLAMINO)PHENYL]-1-PIPERIDINYL}PROPYL)AMINO]CARBONYL}-4-(3,4-DIFLUOROPHENYL)-6-(METHOXYMETHYL)-2-OXO-1,2,3,4-

- pyridinyl)propyl]amino}carbonyl)-4-(3,4-difluorophenyl)6-(methoxymethyl)-2-oxo-1,2,3,4-tetrahydro-5pyrimidinecarboxylate was exposed to tritium gas at 1
 atmosphere pressure in the presence of 5% palladium on
 carbon with stirring overnight to give the tritiated

methyl (4S)-3-{[(3-{4-[3-(acetylamino)phenyl]-1-piperidinyl}propyl)amino]carbonyl}-4-(3,4-difluorophenyl)-6-(methoxymethyl)-2-oxo-1,2,3,4-tetrahydro-5-pyrimidinecarboxylate ((+)-isomer) After

purification by reverse phase HPLC (Hypersil ODS, 4.6×100 mm, methanol: $H_2O:Et_3N$ 10:90:1 to 100:0:1 in 15 min at 1.0 mL/min, with radiochemical and UV detection), this product was used as a radioligand in the MCH1 binding assays. The same procedure was carried out with H_2 gas in place of 3H_2 to afford the non-radioactive version of Compound A.

VI. In-Vivo Methods

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The following in vivo methods were performed to predict the efficacy of MCH1 antagonists for the treatment of obesity (3-day body weight and sweetened condensed milk), depression (forced swim test), anxiety (social interaction test), and urinary disorders (DIRC and CSTI).

Effects of MCH1 Antagonists on Body Weight (3 Day)

Male Long Evans rats (Charles River) weighing 180-200 grams were housed in groups of four on a 12-hour light/dark cycle with free access to food and water. Test compounds were administered twice daily via i.p. injection, 1 hour before the dark cycle and 2 hours after lights on, for three days. All rats were weighed daily after each morning injection. Overall results were expressed as body weight (grams) gained per day (mean ± SEM) and were analyzed by two-way ANOVA. Data for each time point were analyzed by one-way ANOVA followed by post hoc Newman-Keuls test. The data were analyzed using the GraphPad Prism (v2.01) (GraphPad Software, Inc., San Diego, CA). All data were presented as means + S.E.M.

Effects of MCH1 Antagonists on Consumption

of Sweetened Condensed Milk

Male C57BL/6 mice (Charles River) weighing 17-19 grams at the start of experiments were housed in groups of four or five on a 12 hour light/dark cycle with free access to food and water. For 7 days, mice were weighed, and allowed to individual cages in (Nestle, diluted 1:3 with sweetened condensed milk water) for 1 hour, 2-4 hours into the light cycle. The amount of milk consumed was determined by weighing the milk bottle before and after each drinking bout. On the test day, mice received i.p. injections of Test Compound (3, 10 or 30 mg/kg in 0.01 % lactic acid), vehicle (0.01 % lactic acid) of d-fenfluramine (10 mg/kg in 0.01 % lactic acid) 30 min. prior to exposure to milk. amount of milk consumed on the test day (in mls milk/ kg body weight) was compared to the baseline consumption for each mouse determined on the previous 2 days. for each time point were analyzed by one-way ANOVA.

Forced Swim Test (FST) in the Rat

Animals

Male Sprague-Dawley rats (Taconic Farms, NY) were used in all experiments. Rats were housed 5 per cage and maintained on a 12:12-h light-dark cycle. Rats were handled for 1 minutes each day for 4 days prior to behavioral testing.

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Drug Administration

Animals were randomly assigned to receive a single i.p. administration of vehicle (2.5% EtOH / 2.5% Tween-80), imipramine (positive control; 60 mg/kg), or Test Compound 60 minutes before the start of the 5 minute test period. All injections were given using 1 cc tuberculin syringe with 26 3/8 gauge needles (Becton-Dickinson, VWR Scientific, Bridgeport, NJ). The volume of injection was 1 ml/kg.

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Experimental Design

The procedure used in this study was similar to that previously described (Porsolt, et al., 1978), except the water depth was 31 cm in this procedure. The greater depth in this test prevents the rats from supporting themselves by touching the bottom of the cylinder with their feet. Swim sessions were conducted by placing rats in individual plexiglass cylinders (46 cm tall x 20 cm in diameter) containing 23-25°C water 31 cm deep. Swim tests were conducted always between 900 and 1700 hours and consisted of an initial 15-min conditioning test followed 24h later by a 5-minute test. Drug treatments were administered 60 minutes before the 5-minute test period. Following all swim sessions, rats were removed from the cylinders, dried with paper towels and placed in a heated cage for 15 minutes and returned to their home cages. All test sessions were videotaped using a color video camera and recorded for scoring later.

Behavioral Scoring

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The rat's behavior was rated at 5-second intervals during the 5-minute test by a single individual, who was blind to the treatment condition. Scored behaviors were:

- 1. Immobility- rat remains floating in the water without struggling and was only making those movements necessary to keep its head above water;
- 2. Climbing rat was making active movements with its forepaws in and out of the water, usually directed against the walls;
 - 3. Swimming rat was making active swimming motions, more than necessary to merely maintain its head above water, e.g. moving around in the cylinder; and
 - 4. Diving entire body of the rat was submerged.

Data Analysis

- The forced swim test data (immobility, swimming, climbing, diving) were subjected to a randomized, one-way ANOVA and post hoc tests conducted using the Newman-Keuls test. The data were analyzed using the GraphPad Prism (v2.01) (GraphPad Software, Inc., San Diego, CA).

 All data were presented as means + S.E.M. All data were
- 25 All data were presented as means + S.E.M. All data were presented as means + S.E.M.

Forced Swim Test (FST) in the Mouse

Animals

DBA/2 mice (Taconic Farms, NY) were used in all experiments. Animals were housed 5 per cage in a controlled environment under a 12:12 hour light:dark cycle. Animals were handled 1 min each day for 4 days

prior to the experiment. This procedure included a mock gavage with a 1.5 inch feeding tube.

Drug Administration

Animals were randomly assigned to receive a single administration of vehicle (5% EtOH/5% Tween-80), Test Compound, or imipramine (60 mg/kg) by oral gavage 1 hour before the swim test.

10 Experimental Design

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The procedure for the forced swim test in the mouse was similar to that described above for the rat, with some modifications. The cylinder used for the test was a 1-liter beaker (10.5cm diameter X 15 cm height) fill to 800ml (10cm depth) of 23-25°C water. Only one 5-minute swim test was conducted for each mouse, between 1300 and 1700 hours. Drug treatments were administered 30-60 minutes before the 5-minute test period. Following all swim sessions, mice were removed from the cylinders, dried with paper towels and placed in a heated cage for 15 minutes. All test sessions were videotaped using a Sony color video camera and recorder for scoring later.

Behavioral Scoring

25 The behavior during minutes 2-5 of the test was played back on a TV monitor and scored by the investigator. The total time spent immobile (animal floating with only minimal movements to remain afloat) and mobile (swimming and movements beyond those required to remain afloat) were recorded.

Data Analysis

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The forced swim test data (time exhibiting immobility, mobility; seconds) were subjected to a randomized, oneway ANOVA and post hoc tests conducted using the Newman-Keuls test. The data were analyzed using the GraphPad Prism (v2.01) (GraphPad Software, Inc., San Diego, CA). All data were presented as means \pm S.E.M.

Social Interaction Test (SIT)

Rats are allowed to acclimate to the animal 10 facility for 5 days and are housed singly for 5 days prior to testing. Animals are handled for 5 minutes per day. The design and procedure for the Social Interaction Test is carried out as previously described by Kennett, et al. (1997). On the test day, weight matched pairs of 15 5%), unfamiliar to each other, are rats (± identical treatments and returned to their-home cages. Animals are randomly divided into 5 treatment groups, with 5 pairs per group, and are given one of following i.p. treatments: Test Compound (10, 30 or 100 20 mg/kg), vehicle (1 ml/kg) or chlordiazepoxide (5 mg/kg). Dosing is 1 hour prior to testing. Rats are subsequently placed in a white perspex test box or arena (54 \times 37 \times 26 cm), whose floor is divided up into 24 equal squares, for 15 minutes. An air conditioner is used to generate 25 background noise and to keep the room at approximately All sessions are videotaped using a JVC camcorder (model GR-SZ1, Elmwood Park, NJ) with either TDK (HG ultimate brand) or Sony 30 minute videocassettes. sessions are conducted between 1300 -1630 hours. 30 defined as interaction, social Active boxing, wrestling, following and sniffing, biting, crawling over or under, is scored using a stopwatch (Sportsline model no. 226, 1/100 sec. discriminability). The number of episodes of rearing (animal completely raises up its body on its hind limbs), grooming (licking, biting, scratching of body), and face washing (i.e. hands are moved repeatedly over face), and number of squares crossed are scored. Passive social interaction (animals are lying beside or on top of each other) is not scored. All behaviors are assessed later by an observer who is blind as to the treatment of each pair. At the end of each test, the box is thoroughly wiped with moistened paper towels.

Animals

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Male albino Sprague-Dawley rats (Taconic Farms, NY) are housed in pairs under a 12 hr light dark cycle (lights on at 0700 hrs.) with free access to food and water.

Drug Administration

lactic acid, v/v (Sigma Chemical Co., St. Louis, MO).
Chlordiazepoxide (Sigma Chemical Co., St. Louis, MO) is dissolved in double distilled water. The vehicle consists of 50% DMSO (v/v) or 100% dimethylacetamide (DMA). All drug solutions are made up 10 minutes prior to injection and the solutions are discarded at the end of the test day. The volume of drug solution administered is 1 ml/kg.

Data Analysis

The social interaction data (time interacting, rearing and squares crossed) are subjected to a randomized, one-way ANOVA and post hoc tests conducted using the

Student-Newman-Keuls test. The data are subjected to a test of normality (Shapiro-Wilk test). The data are analyzed using the GBSTAT program, version 6.5 (Dynamics Microsystems, Inc., Silver Spring, MD, 1997).

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In Vivo Models of the Micturition Reflex

The effects of compounds on the micturition reflex were "distension-induced rhythmic the assessed in (DIRC), contraction" described previous as in publications (e.g. Maggi et al, 1987; Morikawa et al, Slow Transvesicular Infusion Continuous 1992), and (CSTI) models in rats.

15 DIRC Model

Female Sprague Dawley rats weighing approximately 300 g were anesthetized with subcutaneous urethane (1.2 g/kg). The trachea was cannulated with PE240 tubing to provide a clear airway throughout the experiment. A midline abdominal incision was made and the left and right The ureters were ureters were isolated. distally (to prevent escape of fluids from the bladder) and cannulated proximally with PE10 tubing. The incision was closed using 4-0 silk sutures, leaving the PE10 lines routed to the exterior for the elimination of The bladder was canulated via the transurethral route using PE50 tubing inserted 2.5 cm beyond the urethral opening. This cannula was secured to the tail using tape and connected to a pressure transducer. prevent leakage from the bladder, the cannula was tied tightly to the exterior urethral opening using 4-0 silk.

micturition reflex, the initiate the To bladder was first emptied by applying pressure to the lower abdomen, and then filled with normal saline in 100 increments (maximum = 2 ml) until spontaneous bladder contractions occurred (typically 20-40 mmHg at a rate of one contraction every 2 to 3 minutes. Once a regular established, vehicle (saline) was Compounds were administered i.v. or i.p. to explore The $5-HT_{1A}$ antagonist their effects on bladder activity. WAY-100635 was given as a positive control. Data were expressed as contraction interval (in seconds) before drug application (basal), or after the application of vehicle or test article.

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15 Continuous Slow Transvesicular Infusion (CSTI) rat Model

Male Sprague Dawley rats weighing approximately 300 g were used for the study. Rats were anaesthetized with pentobarbitone sodium (50 mg/kg, i.p). Through a median was exposed incision, bladder abdominal polyethylene cannula (PE 50) was introduced into the bladder through a small cut on the dome of the bladder and the cannula was secured with a purse string suture. end of the cannula was exteriorized other subcutaneously at the dorsal neck area. Similarly, another cannula (PE 50) was introduced into the stomach through a paramedian abdominal incision with the free end exteriorized subcutaneously to the neck region. The surgical wounds were closed with silk 4-0 suture and the animal was allowed to recover with appropriate post surgical care. On the following day, the animal was placed in a rat restrainer. The open end of the bladdercannula was connected to a pressure transducer as well

three-way stopcock. as infusion pump through a bladder voiding cycles were initiated by continuous infusion of normal saline at the rate of 100 μ l/min. The repetitive voiding contractions were recorded on a Power Lab on-line data acquisition software. After recording the basal voiding pattern for an hour, the test drug or vehicle was administered directly into stomach through the intragastric catheter and the voiding cycles were hours. Micturition pressure monitored for 5 frequency were calculated before and after the treatment (at every 30 min interval) for each animal. Bladder capacity was calculated from the micturition frequency, based on the constant infusion of 100ul/min. The effect of the test drug was expressed as a percentage of basal, pre-drug bladder capacity. WAY 100635 was used as positive control for comparison.

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In Vivo Results

Table 2

Effect of MCH1 antagonist (Example No.) in the following in vivo models: 3-day Body Weight (3D BW), mouse Sweetened Condensed Milk (mSwCM), mouse Forced Swim Test (mFST), rat Forced Swim Test (rFST), DIRC model, or CSTI model.

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Example No.	3D BW	mSwCM	mFST	rFST	DIRC	CSTI
2	A	В	C	D	E	F
10	Not Done	Not Done	С	Not Done	E	F
39	A	В	Not Done	D .	Not Done	Not Done
43	Not Done	В	С	Not Done	Not Done	Not Done
44	Not Done	Not Done	No effect	Not. Done	Not Done	Not Done
89	Not Done	В	No effect	Not Done	Not- Done	Not Done
90	Not Done	No effect	No effect	Not Done	Not Done	Not Done
91	Not Done	Not Done	С	Not Done	E	F
93	Not Done	Not Done	No effect	Not Done	Not Done	Not Done
95	Not Done	В	No effect	Not Done	Not Done	Not Done
99	A	Not Done	С	Not Done	E	F
105	Not Done	В	С	Not Done	Not Done	Not Done
106	Not Done	В	С	Not Done	E	F
112	Not Done	Not Done	No effect	Not Done	Not Done	Not Done
116	A	Not Done	С	Not Done	E	F

A = Produced a significant reduction in weight gain relative to vehicle-treated controls

- B = Produced a significant decrease in consumption of milk relative to vehicle-treated controls
- C = Produced a significant decrease in immobility relative to vehicle-treated animals when administered orally.
- D = Produced a significant decrease in immobility
 or a significant increase in swimming activity
 relative to vehicle-treated animals
- E = Produced a significant increase in contraction
 interval relative to pre-drug interval
- F = Produced an increase in bladder capacity in rats relative to baseline capacity.

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References:

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American Psychiatric Association (1994a), Diagnostic and Statistical Manual of Mental Disorders. 4th ed.

Washington, DC: American Psychiatric Association.

American Psychiatric Association (1994b), American DSM-IV Sourcebook. Washington, DC: American Psychiatric Association.

Auburger, G., et al., (1992) Assignment of the second (cuban) locus of autosomal dominant cerebellar ataxia to chromosome 12q23-24.1, between flanking markers D12S58 and PLA2. Cytogenet. Cell. Genet. 61:252-256.

Bahjaoui-Bouhaddi, M., et al., (1994) Insulin treatment stimulates the rat melanin-concentrating hormone-producing neurons. Neuropeptides 24:251-258.

Baker, B.I. (1991) Melanin-concentrating hormone: a general vertebrate neuropeptide. *Int. Rev. Cytol.* 126:1-47.

Baker, B.I. (1994) Melanin-concentrating hormone update: functional consideration. *TEM* <u>5</u>:120-126.

Bassett, A.S., et al., (1988) Partial trisomy chromosome 5 cosegregating with schizophrenia. Lancet 1:799-801.

Bednarek, M.A., et al. "Synthesis and biological evaluation in vitro of a selective, high potency peptide agonist of human melanin-concentrating hormone action at

human melanin- concentrating hormone receptor 1" J Biol Chem 277(16): 13821-13826 (2002).

Bittencourt, J.C., et al., (1992) The melaninconcentrating hormone system of the rat brain: An
immuno- and hybridization histochemical characterization
. J. Comp. Neurol. 319:218-245.

Bobes, J. (1998) J Clin Psychiatry; 59[suppl 17]:12-16.

Borowsky, B., et al., Nature Medicine (in press).

Bradford, M.M. (1976) A rapid and sensitive method for the quantitation of microgram quantities of protein utilizing the principle or protein-dye binding. Anal.

Biochem. 72: 248-254.

Burgaud, J.L., et al., (1997) Melanin-concentrating hormone binding sites in human SVK14 keratinocytes.

Biochem.Biophys.Res.Commun. 241(3):622-629.

Chambers, J., et al., "Melanin-concentrating hormone is the cognate ligand for the orphan G-protein-coupled receptor SLC-1" Nature 400(6741): 261-6 (1999).

Chen, Y., et al, "Targeted disruption of the melaninconcentrating hormone receptor-1 results in hyperphagia
and resistance to diet-induced obesity" Endocrinology
143(7): 2469-2477(2002).

Craddock, N., et al., (1993) The gene for Darier's disease maps to chromosome 12q23-q24.1. Hum. Mol. Genet. 2:1941-1943.

Dondoni, A., et al., (1995) T. Synthesis, 181.

Drozdz, R. and Eberle, A.N. (1995) Binding sites for melanin-concentrating hormone (MCH) in brain synaptosomes and membranes from peripheral tissues identified with highly tritiated MCH. J. Recept. Signal. Transduct. Res. 15(1-4):487-502.

Drozdz, R., et al., (1995) Melanin-concentrating hormone binding to mouse melanoma cells in vitro. FEBS 359:199-202.

5

Drozdz, R., et al., (1998) Characterization of the receptor for melanin-concentrating hormone on melanoma cells by photocrosslinking. Ann. NY Acad. Sci. 839(1):210-213.

Gale Group (2001) Gale Encyclopedia of Psychology, 2nd ed. Gale Group.

Gilliam, T.C., et al., (1989) Deletion mapping of DNA
markers to a region of chromosome 5 that cosegregates
with schizophrenia. Genomics 5:940-944.

Goodman WK, Price LH, Rasmussen SA et al. (1989), The Yale-Brown Obsessive Compulsive Scale. Arch Gen Psychiatry 46:1006-1011.

Gonzalez, M.I., et al., (1997) Stimulatory effect of melanin-concentrating hormone on luteinizing hormone release. Neuroendocrinology 66(4):254-262.

Gonzalez, M.I., et al., (1996) Behavioral effects of α -melanocyte-stimulating hormone (α -MSH) and melanin-

concentrating hormone (MCH) after central administration in female rats. *Peptides* <u>17</u>:171-177.

Grillon, S., et al., (1997) Exploring the expression of the melanin-concentrating hormone messenger RNA in the rat lateral hypothalamus after goldthioglucose injection. Neuropeptides 31(2):131-136.

Herve, C. and Fellmann, D. (1997) Changes in rat
melanin-concentrating hormone and dynorphin messenger
ribonucleic acids induced by food deprivation.
Neuropeptides 31(3):237-242.

Hervieu, G., et al., (1996) Development and stagedependent expression of melanin-concentrating hormone in
mammalian germ cells. Biology of Reproduction 54:11611172.

Kauwachi, H., et al., (1983) Characterization of melanin-concentrating hormone in chum salmon pituitaries. *Nature* 305:321-333.

25

30

Knigge, K.M., et al., (1996) Melanotropic peptides in the mammalian brain: The melanin-concentrating hormone.

Peptides 17:1063-1073.

Knigge, K.M. and Wagner, J.E. (1997) Melanin-concentrating hormone (MCH) involvement in pentylenetetrazole (PTZ)-induced seizure in rat and guinea pig. *Peptides* 18(7):1095-1097.

Lakaye, B., et al., "Cloning of the rat brain cDNA encoding for the SLC-1 G protein-coupled receptor

reveals the presence of an intron in the gene" Biochem Biophys Acta 1401(2): 216-220 (1998).

Ludwig, D.S., et al., (1998) Melanin-concentrating hormone: a functional melanocortin antagonist in the hypothalamus. Am. J. Physiol. Endocrinol. Metab. 274(4):E627-E633.

MacKenzie, F.J., et al., (1984) Evidence that the dopaminergic incerto-hypothalamic tract has a stimulatory effect on ovulation and gonadotropin release. Neuroendocrinology 39:289-295.

Maggi, C.A., et al., "Spinal and supraspinal components of GABAergic inhibition of the micturition reflex in rats." J Pharmacol Exp Ther 240: 998-1005 (1987).

Marsh, D.J., et al, "Melanin-concentrating hormone 1 receptor-deficient mice are lean, hyperactive, and hyperphagic and have altered metabolism" *Proc Natl Acad Sci U S A* 99(5): 3240-3245 (2002).

Martin, R., et al., (1997) J. Tetrahedron Letters, 38, 1633.

McBride, R.B., et al., (1994) The actions of melanin-concentrating hormone (MCH) on passive avoidance in rats: A preliminary study. *Peptides* 15:757-759.

Medical Economics Company (2002), Physicians' Desk

Reference; 56th ed., Montvale, NJ: Medical Economics

Company, Inc., pp. 1609-1615, 2751-2756, 3495-3504.

25

Melki, J., et al., (1990) Gene for chronic proximal spinal muscular atrophies maps to chromosome 5q. *Nature* (London) 344:767-768.

5 Miller, C.L., et al., (1993) $\alpha\text{-MSH}$ and MCH are functional antagonists in a CNS auditory paradigm. Peptides 14:1-10.

Morikawa, K., et al., "Inhibitory effect of inaperisone hydrochloride (inaperisone), a new centrally acting muscle relaxant, on the micturition reflex." Eur J Pharmacol 213: 409-415 (1992).

Nahon, J-L. (1994) The melanin-concentrating hormone:

from the peptide to the gene. Critical Rev. in Neurobiol
221:221-262.

Parkes, D.G. (1996) Diuretic and natriuretic actions of melanin concentrating hormone in conscious sheep. J.

Neuroendocrinol. 8:57-63.

Pedeutour, F., et al., (1994) Assignment of the human pro-melanin-concentrating hormone gene (PMCH) to chromosome 12q23-24 and two variant genes (PMCHL1 and PMCHL2) to chromosome 5p14 and 5q12-q13. Genomics 19:31-37.

25

30

Porsolt, R.D., et al., "Behavioural despair in rats: a new model sensitive to antidepressant treatments" Eur J Pharmacol 47(4): 379-391 (1978).

Presse, F., et al. (1992) Rat melanin-concentrating hormone messenger ribonucleic acid expression: marked

changes during development and after stress and glucocorticoid stimuli. *Endocrinology* 131:1241-1250.

Qu, D., et al. (1996) A role for melanin-concentrating hormone in the central regulation of feeding behaviour.

Nature 380:243-247.

Rossi, M., et al., (1997) Melanin-concentrating hormone acutely stimulates feeding, but chronic administration has no effect on body weight. *Endocrinology* 138:351-355.

10

15

25

30

Sahu, A. (1998) Evidence suggesting that galanin (GAL), melanin-concentrating hormone (MCH), neurotensin (NT), proopiomelanocortin (POMC) and neuropeptide Y (NPY) are targets of leptin signaling in the hypothalamus. Endocrinology 139(2):795-798.

Sakurai, T., et al., (1998) Orexins and orexin receptors: A family of hypothalamic neuropeptides and G protein-coupled receptors that regulate feeding behavior. Cell 92:573-585.

Sanchez, M., et al., (1997) Melanin-concentrating hormone (MCH) antagonizes the effects of α -MSH and neuropeptide E-I on grooming and locomotor activities in the rat. Peptides 18:393-396.

Saito, Y., et al., "Molecular characterization of the melanin-concentrating-hormone receptor" Nature 400(6741): 265-269 (1999).

Schneier FR, Heckelman LR, Garfinkel R, et al. (1994) J Clin Psychiatry 55:322-331. Sherrington, R., et al., (1988) Localization of a susceptibility locus for schizophrenia on chromosome 5.

Nature (London) 336:164-167.

5 Srebnik, M., et al., (1988) J. Org. Chem., 53, 2916-2920.

Takekawa, S., et al., "T-226296: a novel, orally active and selective melanin-concentrating hormone receptor antagonist" Eur J Pharmacol 438(3): 129-35 (2002)

15

Twells, R., et al., (1992) Chromosomal assignment of the locus causing olivo-ponto-cerebellar atrophy (SCA2) in a cuban founder population. *Cytogenet. Cell. Genet.* 61:262-265.

Westbrook, C.A., et al., (1992) Report of the second international workshop on human chromosome 5 mapping. Cytogenet. Cell. Genet. 61:225-231.